

Inventor search history

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PROCESSING COMPLETED FOR L110
PROCESSING COMPLETED FOR L110
L151      50 DUP REM L110 L150 (17 DUPLICATES REMOVED)
ANSWERS '1-43' FROM FILE HCAPLUS
ANSWERS '44-49' FROM FILE BIOSIS
ANSWER '50' FROM FILE DRUGU

*> d que L110
L99      QUE ABB=ON PLU=ON PY<2005 OR PRY<2005 OR RE
        VIEW/DT
L101     144 SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRITTMATTER S M"/AU OR
        "STRITTMATTER STEPHEN"/AU OR "STRITTMATTER STEPHEN M"/AU OR
        "STRITTMATTER STEPHEN MARK"/AU OR "STRITTMATTER STEPHEN S"/AU)
L102     228 SEA FILE=HCAPLUS ABB=ON PLU=ON ("LEE DANIEL"?/AU OR "LEE
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L103     4680 SEA FILE=HCAPLUS ABB=ON PLU=ON "LI WEIWEI"/AU OR "LI WEI
        WEI"/AU OR "LI WEI"/AU OR "LI W W"/AU OR "LI WEI W"/AU
L104     5 SEA FILE=HCAPLUS ABB=ON PLU=ON L101 AND L102 AND L103
L105     5038 SEA FILE=HCAPLUS ABB=ON PLU=ON (L101 OR L102 OR L103)
L106     14 SEA FILE=HCAPLUS ABB=ON PLU=ON L105 AND BIOGEN?/CO,CS,PA,SO
L107     97 SEA FILE=HCAPLUS ABB=ON PLU=ON L105 AND YALE?/CO,CS,PA,SO
L108     78 SEA FILE=HCAPLUS ABB=ON PLU=ON L107 AND L99
L109     30 SEA FILE=HCAPLUS ABB=ON PLU=ON L108 AND (ALZHEIMER? OR
        ALZHEIMER? OR AMYLOID? OR PLAQUE? OR NOGO? OR NOGOR? OR NOGO1?
        OR NOGOR? OR NGR? OR NGR? OR NGR1?)
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L150    24 S L147 OR L149
        SAVE TEMP L150 HA66MLIN/A

*> d que L150
L99      QUE ABB=ON PLU=ON PY<2005 OR PRY<2005 OR RE
        VIEW/DT
L101     144 SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRITTMATTER S M"/AU OR
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        "STRITTMATTER STEPHEN MARK"/AU OR "STRITTMATTER STEPHEN S"/AU)
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L103     4680 SEA FILE=HCAPLUS ABB=ON PLU=ON "LI WEIWEI"/AU OR "LI WEI
        WEI"/AU OR "LI WEI"/AU OR "LI W W"/AU OR "LI WEI W"/AU
L104     5 SEA FILE=HCAPLUS ABB=ON PLU=ON L101 AND L102 AND L103
L105     5038 SEA FILE=HCAPLUS ABB=ON PLU=ON (L101 OR L102 OR L103)
L106     14 SEA FILE=HCAPLUS ABB=ON PLU=ON L105 AND BIOGEN?/CO,CS,PA,SO
L147     6 SEA L104
L148     27 SEA L106
L149     20 SEA L148 AND L99
L150     24 SEA L147 OR L149

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FILE 'HCAPLUS' ENTERED AT 12:07:44 ON 21 NOV 2007
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Inventor search results

=> d L151 1-50 ibib ab  
**L151 ANSWER 1 OF 50** HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1  
 ACCESSTION NUMBER: 2006:152149 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:230750  
 TITLE: Alzheimer precursor protein interaction with the nogeo-66 receptor reduces amyloid- $\beta$  plaque deposition

AUTHOR(S): Park, James H.; Gimbel, David A.; Grandpre, Tadzia; Lee, Jung-Kil; Kim, Ji-Run; Li, Weiwei; Lee, Daniel H. S.; Strittmatter, Stephen M.  
 CORPORATE SOURCE: Department of Neurology, Yale University School of Medicine, New Haven, CT, 06510, USA  
 SOURCE: Journal of Neuroscience (2006), 26(5), 1386-1395  
 CODEN: JNRSDS; ISSN: 0270-6474  
 PUBLISHER: Society for Neuroscience  
 DOCUMENT TYPE: English  
 LANGUAGE:  
 AB Patchophysiol. hypotheses for Alzheimer's disease (AD) are centered on the role of the amyloid plaque  $\beta$  peptide and the mechanism of its derivation from the amyloid precursor protein (APP). As part of the disease process, an aberrant axonal sprouting response is known to occur near  $\beta$  deposits. A Nogo to Nogo-66 receptor (NgR) pathway contributes to determining the ability of adult CNS axons to extend after traumatic injuries. Here, we consider the potential role of NgR mechanisms in AD. Both Nogo and NgR are mislocalized in AD brain samples. APP phys. assoccs. with the NgR. Overexpression of NgR decreases  $\beta$  production in neuroblastoma culture, and targeted disruption of NgR expression increases transgenic mouse brain  $\beta$  levels,  $\beta$  plaque deposition, and dystrophic neurites. Infusion of a soluble NgR fragment reduces  $\beta$  levels, amyloid plaque deposits, and dystrophic neurites in a mouse transgenic AD model. Changes in NgR level produce parallel changes in secreted APP and  $\beta$ , implicating NgR as a blocker of secretase processing of APP. The NgR provides a novel site for modifying the course of AD and highlights the role of axonal dysfunction in the disease.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

**L151 ANSWER 2 OF 50** HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2  
 ACCESSTION NUMBER: 2006:1722181 HCAPLUS Full-text  
 DOCUMENT NUMBER: 145:237732  
 TITLE: The Nogo66 receptor pathway and CNS axon regeneration: new hopes for treating CNS injuries and neurodegeneration  
 AUTHOR(S): Lee, Daniel HS; Seaman, Katherine W.  
 CORPORATE SOURCE: Biogen Idec, Inc., Cambridge, MA, 02142, USA  
 SOURCE: Expert Opinion on Therapeutic Patents (2006), 16(8), 1041-1050  
 CODEN: EOTPGE; ISSN: 1354-3776  
 PUBLISHER: Informa Healthcare  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE:  
 AB A review. The neuronal leucine-rich repeat Nogo66 receptor (NgR) interacts with the myelin protein Nogo66, myelin associated glycoprotein and oligodendrocyte myelin glycoprotein to inhibit axon growth. Modulation of

these cell surface NgR-dependent interactions or the inhibitory intracellular signaling pathways may promote axon growth in the CNS after injury and present an attractive axon regeneration platform for treating CNS injuries or even neurodegenerative disorders. Multiple NgR antagonism approaches, including soluble NgR proteins, anti-NgR antibodies, a Nogo-derived agonistic peptide and NgR signal transduction modulators, have demonstrated striking efficacies in promoting functional recoveries in animal models of spinal cord injury, stroke and multiple sclerosis. This review summarizes the neurobiology of the NgR pathway and the various drug discovery strategies that are specifically based on modulation of the myelin-NgR interaction.

REFERENCE COUNT: 102 THERE ARE 102 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

**L151 ANSWER 3 OF 50** HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3  
 ACCESSTION NUMBER: 2004:828320 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:311429  
 TITLE: A Neutralizing Anti-Nogo66 Receptor Monoclonal Antibody Reverses Inhibition of Neurite Outgrowth by Central Nervous System Myelin  
 AUTHOR(S): Li, Weiwei; Malus, Lee; Rabacchi, Sylvia A.; Jirik, Adrienna; Chang, Brinie; Schauer, Jessica; Zheng, Betty H.; Benedict, Nancy J.; Liu, Betty P.; Choi, Eugene; Worley, Daniel; Silivri, Laura; Mo, Wenjun; Muller, Colleen; Yang, Weixing; Strittmatter, Stephen M.; Sah, Dinah W. Y.; Pepinsky, Blake; Lee, Daniel H. S.; Biogen Idec, Inc., Cambridge, MA, 02142, USA  
 CORPORATE SOURCE: J. Biol. Chem. (2004), 279(42), 43780-43788  
 CODEN: JBCHA3; ISSN: 0021-9358  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: English  
 LANGUAGE:  
 AB The Nogo66 receptor (NgR1) is a neuronal, leucine-rich repeat (LRR) protein that binds three central nervous system (CNS) myelin glycoprotein, Nogo, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein, and mediates their inhibitory effects on neurite growth. Although the LRR domains on NgR1 are necessary for binding to the myelin proteins, the exact epitope(s) involved in ligand binding is unclear. Here we report the generation and detailed characterization of an anti-NgR1 monoclonal antibody, 7E11. The 7E11 monoclonal antibody blocks Nogo, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein binding to NgR1 with IC50 values of 120, 14, and 4.5 nm, resp., and effectively promotes neurite outgrowth of P3 rat dorsal root ganglia neurons cultured on a CNS myelin substrate. Further, we have defined the mol. epitope of 7E11 to be DRAQR located in the third LRR domain of rat NgR1. Our data demonstrate that anti-NgR1 antibodies recognizing this epitope, such as 7E11, can neutralize CNS myelin-dependent inhibition of neurite outgrowth. Thus, specific anti-NgR1 antibodies may represent a useful therapeutic approach for promoting CNS repair after injury.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

**L151 ANSWER 4 OF 50** HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4  
 ACCESSTION NUMBER: 2004:105621 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:17332  
 TITLE: Blockade of nogo-66, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein by soluble nogo-66 receptor promotes axonal sprouting and recovery after spinal injury

AUTHOR(S): Li, Shuxin; Liu, Betty P.; Budei, Stephanie; Li, Mingwei; Ji, Benjiu; Walus, Lee; Li, Weiwei; Jirik, Adrienna; Rabacchi, Sylvia; Choi, Eugene; Worley, Diane; Sah, Dinah W. Y.; Pepinsky, Blake; Lee, Daniel; Relton, Jane; Strittmatter, Stephan M.

CORPORATE SOURCE: Departments of Neurology and Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA

SOURCE: Journal of Neuroscience (2004), 24(46), 10511-10520

CODEN: JNRSDS; ISSN: 0270-6474

PUBLISHER: Society for Neuroscience

DOCUMENT TYPE: English

LANGUAGE: AB The growth of injured axons in the adult mammalian CNS is limited after injury. Three myelin proteins, Nogo, MAG (myelin-associated glycoprotein), and OMP (oligodendrocyte myelin glycoprotein), bind to the NgR-66 receptor (NgR) and inhibit axonal growth in vitro. Transgenic or viral blockade of NgR function allows axonal sprouting in vivo. Here, we administered the soluble purified NgR(310)ecto-Fc protein was delivered intrathecally after mid-thoracic dorsal over-hemisection. Axonal sprouting of corticospinal and raphe spinal fibers in NgR(310)ecto-Fc-treated animals correlates with improved spinal cord elect. conduction and improved locomotion. The ability of soluble NgR(310)ecto to promote axon growth and locomotor recovery demonstrates a therapeutic potential for NgR antagonism in traumatic spinal cord injury.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 5 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 5  
ACCESSION NUMBER: 2003:847445 HCAPLUS Full-text  
DOCUMENT NUMBER: 139-212250

TITLE:  $\alpha$ 7 Nicotinic Acetylcholine Receptors Mediate

$\beta$ -Amyloid Peptide-induced tau Protein Phosphorylation

Wang, Hsou-Yan; Li, Weiwei; Benedetti, Nancy J.; Lee, Daniel H. S.

CORPORATE SOURCE: Biogen Inc., Cambridge, MA, 02142, USA  
SOURCE: Journal of Biological Chemistry (2003), 278(34), 31447-31553

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: English

LANGUAGE: AB The Alzheimer's disease pathogenic peptide,  $\beta$ -amyloid42 (A $\beta$ 42), induces tau protein phosphorylation. Because hyperphosphorylated tau is a consistent component of neurofibrillary tangles, a pathol. hallmark of Alzheimer's disease, we investigated the signaling mols. involved in A $\beta$ 42-induced tau phosphorylation on three proline-directed sites (Ser-202, Thr-181, and Thr-231) in systems enriched in  $\alpha$ 7 nicotinic acetylcholine receptors ( $\alpha$ 7nAChR) including serum-deprived human SK-N-MC neuroblastoma cells and hippocampal synaptosomes. Although  $\alpha$ 7nAChR agonists induced similar phosphorylation, pretreatment with antisense- $\alpha$ 7nAChR oligonucleotides (in cells) or  $\alpha$ nAChR antagonists (in cells and synaptosomes) attenuated A $\beta$ -induced tau phosphorylation. Western analyses showed that the mitogen-activated kinase cascade proteins, ERKs and c-Jun N-terminal kinase (JNK-1), were concomitantly

activated by A $\beta$ 42, and their resp. kinase inhibitors suppressed A $\beta$ -induced tau phosphorylation. More importantly, recombinant-activated ERKs and JNK-1 could differentially phosphorylate tau protein in vitro. Thus, the  $\alpha$ 7nAChR may mediate A $\beta$ -induced tau protein phosphorylation via ERKs and JNK-1.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 6 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 6  
ACCESSION NUMBER: 2003:922380 HCAPLUS Full-text  
DOCUMENT NUMBER: 140-156523

TITLE: Targeting the NOGO receptor to treat central nervous system injuries

AUTHOR(S): Lee, Daniel H. S.; Strittmatter, Stephen M.; Sah, Dinah W. Y.

CORPORATE SOURCE: Biogen Inc., Cambridge, MA, 02142, USA

SOURCE: Nature Reviews Drug Discovery (2003), 2(11), 872-876

CODEN: NRDDAG; ISSN: 1474-1776

Nature Publishing Group

JOURNAL: General Review

LANGUAGE: English

AB A review. Axonal damage is a key pathol. in many injuries of the central nervous system (CNS), such as spinal cord injury, traumatic brain injury and stroke, as well as in multiple sclerosis. An attractive drug discovery strategy to treat such conditions is to search for agents that promote CNS axonal regeneration. Historically, limited knowledge concerning the basis of poor CNS regeneration has precluded a rational drug discovery approach for promoting axonal regeneration. The recent identification of the NgR receptor, which interacts with inhibitory myelin protein, established the crucial role of this mol. pathway in mediating the inhibitory effects of CNS myelin. This provides an unprecedented opportunity to manipulate adult CNS axonal regeneration. The development of therapeutics targeting the NgR receptor has the potential to promote functional recovery and reverse the devastating consequences of CNS injuries.

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 7 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 7  
ACCESSION NUMBER: 2003:288472 HCAPLUS Full-text  
DOCUMENT NUMBER: 139-5020

TITLE: Differential physiologic responses of  $\alpha$ 7 nicotinic acetylcholine receptors to

$\beta$ -amyloid-40 and  $\beta$ -amyloid-42

AUTHOR(S): Lee, Daniel H. S.; Wang, Hsou-Yan

CORPORATE SOURCE: Biogen Inc., Cambridge, MA, 02142, USA

SOURCE: Journal of Neurobiology (2003), 55(1), 25-30

CODEN: JNEUBZ; ISSN: 0022-3034

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: English

LANGUAGE: English

AB The  $\beta$ -amyloid peptides (A $\beta$ ), A $\beta$ 1-40 and A $\beta$ 1-42, were implicated in Alzheimer's disease (AD) pathol. Although A $\beta$ 1-42 is generally considered to be the pathol. peptide in AD, both A $\beta$ 1-40 and A $\beta$ 1-42 were used in a variety of exptl. models without discrimination. Here the authors show that monomeric or oligomeric forms of the 2 A $\beta$  peptides, when interact with the neuronal cation channel,  $\alpha$ 7 nicotinic acetylcholine receptors ( $\alpha$ 7nAChR), would result in distinct physiol. responses as measured by acetylcholine release and Ca influx expts. While A $\beta$ 1-42 effectively attenuated these  $\alpha$ 7nAChR-dependent physiol. to an extent that was apparently irreversible, A $\beta$ 1-40 showed a lower

Inhibitory activity that could be restored upon washings with physiol. buffers or treatment with  $\alpha$ -NACHR antagonists. These data suggest a clear pharmacological distinction between A $\beta$ 1-40 and A $\beta$ 1-42.

26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE COUNT:	INVENTOR (S) :	PATENT ASSIGNEE (S) :	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC. NUM. COUNT:	PATENT INFORMATION:	PATENT NO.:	KIND	DATE	APPLICATION NO.	DATE	
L151 ANSWER 8 OF 50	HCAPLUS COPYRIGHT 2007 ACS on STN 2007:066580 HCAPLUS Full-text							WO 2007089601	A2	20070809	WO 2007-US2199	20070126	
ACCESSION NUMBER:	W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HR, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MR, MN, MW, MX, MY, NZ, OM, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,												
DOCUMENT NUMBER:	TITLE: Use of antagonists of the myelin-associated inhibitory factor receptor complex and neurotrophic factors for treatment of neurologic diseases and disorders	Lee, Daniel H. S.; Rossenbom, Anthony; Weinreb, Paul H. Biogen Idec Ma Inc., USA PCT Int. Appl., 187pp. CODEN: PIXXD2											
REFERENCE COUNT:	PATENT ASSIGNEE (S) :	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC. NUM. COUNT:	PATENT INFORMATION:	PRIORITY APPLN. INFO.:				US 2006-762487P	P 20060127	
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L151 ANSWER 9 OF 50	HCAPLUS COPYRIGHT 2007 ACS on STN 2007:147:315096 HCAPLUS Full-text												
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DOCUMENT NUMBER:	TITLE: Antagonists of the Nogo-1 receptor and their use in promoting neurite outgrowth.	Lee, Daniel H. S.; Wen, Dingyi; Pepinsky, Blake R.; Reitton, Jane K.; Wang, Xinzhang; Lugovskoy, Alexey; Meier, Warner; Garber, Ellen A.; Silivian, Laura; Weinreb, Paul H. Biogen Idec Ma Inc., USA PCT Int. Appl., 190pp., which CODEN: PIXXD2											
REFERENCE COUNT:	PATENT ASSIGNEE (S) :	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC. NUM. COUNT:	PATENT INFORMATION:	PRIORITY APPLN. INFO.:				US 2006-776657P	P 20060227	
					1						US 2006-831459P	P 20060718	
L151 ANSWER 9 OF 50	HCAPLUS COPYRIGHT 2007 ACS on STN 2007:147:289240 HCAPLUS Full-text												
ACCESSION NUMBER:	W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HR, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MR, MN, MW, MX, MY, NZ, OM, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW												
DOCUMENT NUMBER:	TITLE: Antagonists of the Nogo-1 receptor and their use in promoting neurite outgrowth in treatment of nerve injury.	Lee, Daniel H. S.; Wen, Dingyi; Pepinsky, Blake R.; Reitton, Jane K.; Wang, Xinzhang; Lugovskoy, Alexey; Meier, Warner; Garber, Ellen A.; Silivian, Laura; Weinreb, Paul H. Biogen Idec Ma Inc., USA PCT Int. Appl., 190pp., which CODEN: PIXXD2											
REFERENCE COUNT:	PATENT ASSIGNEE (S) :	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC. NUM. COUNT:	PATENT INFORMATION:	PRIORITY APPLN. INFO.:				US 2006-8313369	WO 20060825	
					1						WO 2007035219	A3	20070511
L151 ANSWER 9 OF 50	HCAPLUS COPYRIGHT 2007 ACS on STN 2007:147:289240 HCAPLUS Full-text												
ACCESSION NUMBER:	W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HR, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MR, MN, MW, MX, MY, NZ, OM, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW												
DOCUMENT NUMBER:	TITLE: Antagonists of the Nogo-1 receptor and their use in promoting neurite outgrowth in treatment of nerve injury.	Lee, Daniel H. S.; Wen, Dingyi; Pepinsky, Blake R.; Reitton, Jane K.; Wang, Xinzhang; Lugovskoy, Alexey; Meier, Warner; Garber, Ellen A.; Silivian, Laura; Weinreb, Paul H. Biogen Idec Ma Inc., USA PCT Int. Appl., 190pp., which CODEN: PIXXD2											
REFERENCE COUNT:	PATENT ASSIGNEE (S) :	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC. NUM. COUNT:	PATENT INFORMATION:	PRIORITY APPLN. INFO.:				US 2006-8313369	WO 20060825	
					1						WO 2007035219	A3	20070511

10/553,669

GM, KE, LS, MW, NA, SD, SL, TZ, UG, 2M, 2W, AM, AZ, BY,  
 KG, KZ, MD, RU, TI, TM, AP, EA, EP, OA  
 PRIORITY APPLN. INFO.: US 2005-710864P  
**AB** The present invention is directed to the use of certain polypeptides and polypeptide fragments of Nogo receptor-1 (NgR1) and Nogo receptor-2 (NgR2) for promoting neurite outgrowth, neuronal survival, and axonal regeneration in CNS neurons. Previous studies have shown that the entire leucine rich repeat (LRR) region of NgR1, including the C-terminal cap of LRR, LRR-CT, is needed for ligand binding, and that the adjacent CT stalk of the NgR1 contributes to interaction with its co-receptors. The inventors confirmed the amino acid sequence of human NgR1 by tryptic peptide mapping. The inventors confirmed that the disulfide structure of NgR1 and NgR2 proteins from human and rat, particularly the LRR-CT regions. Typically, the polypeptides and polypeptide fragments of the invention act to block NgR-mediated inhibition of neuronal survival, neurite outgrowth or axonal regeneration of CNS (central nervous system) neurons by inhibiting signal transduction by the NgR complex.

L151 ANSWER 11 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 DOCUMENT NUMBER: 2006:1226364 HCAPLUS Full-text  
 146:26348  
 TITLE: Neuronal degeneration treatment with Nogo receptor antagonists  
 INVENTOR(S): Lee, Daniel H. S.; Sah, Dinhah W. Y.; So, Kwok Fai; Wu, Wuriyan  
 PATENT ASSIGNEE(S): Biogen Idec Ma Inc., USA; The University of Hong Kong  
 SOURCE: PCT Int. Appl., 49pp.  
 CODEN: PIIXD2  
 Patent English

PATENT NO. A2  
 FAMILY ACC. NUM. COUNT: 1  
 PRIORITY INFORMATION: 20061123  
 PRIORITY APPLN. INFO.: US 2006-US18484

KIND DATE APPLICATION NO. DATE  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LR, LS, LT, LU, LY, MA, MD, MG, MN, MW, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, SC, SE, SG, SK, SL, SM, SY, TJ, TM, TR, TT, UA, UG, US, UZ, VC, VN, RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, ND, PL, PT, RO, SE, SI, SK, TR, BF, BJ, RU: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, KG, KZ, MD, RU, TU, TM

AU 200529974  
 CPA 2582581  
 BP 1605209  
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CN 10105803  
 IN 2007DN02424  
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CN 2005-80033350  
 IN 2007-DR2424  
 P: 2004-0101  
 W: 20051003

AB Nogo, MAG, and Ongp are myelin-derived proteins that bind to a neuronal Nogo-66 Receptor (NgR) to limit axonal regeneration after CNS injury. Nogo-66 protein may play the most prominent role in vivo, perhaps because its action is mediated both by NgR and by other receptors. Here, we extend our previous analysis of Nogo-A and NgR functional domains. In addition to a NgR-dependent Nogo-66 inhibitory domain and a NgR-independent Amino-Nogo-A specific domain, we identify a third Nogo-A specific domain that binds to NgR with nanomolar affinity. This third domain of 19 amino acids (aa) does not alter cell spreading or axonal outgrowth. Alk-scanning mutagenesis of surface residues in NgR partially distinguishes ligand binding sites for the two Nogo domains and for MAG, Ongp and Lingo-1. Fusion of the two NgR-binding Nogo-A domains creates a ligand with ten-fold enhanced affinity for NgR and converts a NgR antagonist peptide to an agonist. Thus, inhibition of axonal regeneration by NGR occurs after binding a subnanomolar bipartite Nogo-A ligand at a site partly overlapping with that for MAG and Ongp.

p.9

10/553,669

L151 ANSWER 12 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 DOCUMENT NUMBER: 2006:41939 HCAPLUS Full-text  
 144:463018

**AB** Receptor-binding Nogo-A peptides, receptor-1 mutant proteins with altered ligand binding, and pharmaceutical compositions. Strittmatter, Stephen M. Yale University, USA  
 PCT Int. Appl., 87 pp.  
 CODEN: PIIXD2  
 Patent English

PATENT NO. A2  
 FAMILY ACC. NUM. COUNT: 1  
 PRIORITY INFORMATION:

WO 2006047049  
 WO 200606011  
 A3

WO 2005-054

10/553,669

L151 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 DOCUMENT NUMBER: 2006:1127301 HCAPLUS Full-text

**AB** The disclosed invention provides methods for treating conditions of the eye involving death or degeneration of retinal ganglion cells, including glaucoma, by the administration of Nogo receptor-1 (NgR1) antagonists. The NgR1 antagonists comprise: a soluble form of NgR1 of different lengths and with different (up to 10) conservative amino acid substitutions; soluble NgR1 fusion with Ig FC fragment; and different forms of anti-NgR1 antibodies and antibody fragments.

L151 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 DOCUMENT NUMBER: 2006:1127301 HCAPLUS Full-text

p.10

10/553,669

DOCUMENT NUMBER: 146-355078  
 TITLE: Extracellular regulators of axonal growth in the adult central nervous system  
 AUTHOR(S): Liu, Betty P.; Cafferty, William B. J.; Budel, Stephane O.; Strittmatter, Stephen M.  
 CORPORATE SOURCE: Department of Neurology, Yale University School of Medicine, New Haven, CT, 06520, USA  
 SOURCE: Philosophical Transactions of the Royal Society, B: Biological Sciences (2006), 361(1473), 1593-1610  
 CODEN: PTRBAE; ISSN: 0962-8436  
 PUBLISHER: Royal Society  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review. Robust axonal growth is required during development to establish neuronal connectivity. However, stable fiber patterns are necessary to maintain adult mammalian central nervous system (CNS) function. After adult CNS injury, factors that maintain axonal stability limit the recovery of function. Extracellular matrix molecules play an important role in preserving the stability of the adult CNS axons and in restricting recovery from pathologic damage. Adult axonal growth inhibitors include a group of proteins on the oligodendrocyte, Nogo-A, myelin-associated glycoprotein, oligodendrocyte-myelin glycoprotein and ephrin-B3, which interact with axonal receptors, such as NgR1 and EphB4. Extracellular proteoglycans containing chondroitin sulfates also inhibit axonal sprouting in the adult CNS, particularly at the sites of astrogial scar formation. Therapeutic perturbations of these extracellular axonal growth inhibitors and their receptors or signalling mechanisms provide a degree of axonal sprouting and regeneration in the adult CNS. After CNS injury, such interventions support a partial return of neuronal function.

REFERENCE COUNT: 215 THERE ARE 215 CITED REFERENCES AVAILABLE IN THE RE

FORMAT

L151 ANSWER 14 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006-1054881 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146-1249381

Axonal regeneration and recovery from chronic central nervous system injury  
 Strittmatter, Stephen M.  
 Corporate Source: Department of Neurology, Yale University of School of Medicine, New Haven, CT, USA  
 SOURCE: Principles of Molecular Medicine (2nd Edition) (2006), 1165-1172. Editor(s): Runge, Marshall S.; Patterson, Cam; Humana Press Inc.; Totowa, N. J.  
 CODEN: 69IMWX; ISSN: 1-58829-202-9  
 DOCUMENT TYPE: Conference; General Review  
 LANGUAGE: English  
 AB A review. Damage to the adult brain or spinal cord commonly produces persistent dysfunction without recovery. To replace lost neurons, stem cells, trophic factors, and transplantation of neural-competent cells might be relevant. Treatment of dysfunction based on the disconnection of surviving neurons requires the axonal regeneration from remaining neurons and a degree of plasticity in neuronal connectivity. Those neuronal conditions in which axonal regeneration and plasticity are most relevant are reviewed here. Recent scientific advances are likely to lead to the development of a novel group of therapeutics targeting axonal regeneration for the recovery of function in chronic neural dysfunction.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/553,669

ACCESSION NUMBER: 2005-823596 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143-222540  
 TITLE: Treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists  
 INVENTOR(S): Reitman, Jane K.; Engber, Thomas M.; Strittmatter, Stephen M.  
 PATENT ASSIGNEE(S): Biogen Idec MA Inc., USA;  
 University PCT Int. Appl., 26 pp.  
 SOURCE: CODEN: PIXAD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
 WO 2005074972 A2 20050818 WO 2005-US2535 20050128 <->  
 WO 2005074972 A3 20051222  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, IS, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LP, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, 2M, 2W, SM  
 RW: BN, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UC, 2M, 2W, AM, A2, BY, KG, KZ, MD, RU, TU, TN, AT, BB, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2005210621 A1 20050818 AU 2005-210621 20050128 <->  
 CA 5555018 A1 20050818 CA 2005-2555018 20050128 <->  
 EP 17133494 A2 20051025 EP 2005-712127 20050128 <->  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SL, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, DE, HU, PL, SK, CN 1946418 A 20070411 CN 2005-80009242 20050128 <->  
 BR 2005007272 A 20070626 20050128 <->  
 JP 2007519737 T 20070719 JP 2006-551456 20050128 <->  
 MX 2006PA08392 A 20061030 MX 2006-PA8392 20060725 <->  
 IN 2006DN04365 A 20070831 IN 2006-717342 20060828 <->  
 KR 2007052237 A 20070521 KR 2006-717342 20060828 <->  
 PRIORITY APPLN. INFO.: US 2004-540798P P 20040130 <->  
 PRIORITY APPLN. INFO.: WO 2005-US2535 W 20050128

AB The invention provides methods for promoting regeneration or survival of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neuronal degeneration, including a human with Parkinson's disease, using Nogo receptor antagonists. The number of surviving dopaminergic neurons in the substantia nigra was significantly greater in Nogo receptor knockout mice compared to their heterozygote and wild-type litter-mate controls 4 wk after unilateral 6-hydroxydopamine injections. In addition, rotational behavior in response to apomorphine challenge was significantly lower in Nogo receptor null mice. These data show increased neuronal survival and improved recovery of function in dopaminergic pathways in the brain after injury in mice lacking Nogo receptor. Treatment with the Nogo receptor antagonist sNgr(310)-Fc (soluble nature Nogo receptor fused with an Ig Fc fragment) increases cell survival and improved recovery in dopaminergic pathways in rat brain after injury. Thus, Nogo receptor antagonists comprising soluble Nogo receptor polypeptides, antibodies to the Nogo receptor protein, and small mol. may

10/553,669  
Promote regeneration and survival of dopaminergic neurons in mammals displaying degeneration.

Identifying the mol. determinants promoting and inhibiting CNS axonal regeneration is discussed. Understanding how these determinants function, pharmacol. agents can be screened and medical treatments can be devised for the new therapeutic modality of axon regeneration in neuro-recovery.

REFERENCE COUNT: 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 16 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005-1250915 HCAPLUS Full-text

TITLE: Disulfide Structure of the Leucine-Rich Repeat C-Terminal Cap and C-Terminal Stalk Region of Nogo-66 Receptor

AUTHOR(S): Wen, Dingyi; Wildes, Daniel H.; S.; Meier, Laura; Walus, Werner; Pepinsky, R. Blake

CORPORATE SOURCE: Biogenidec, Inc., Cambridge, MA, 02142, USA  
SOURCE: Biochemistry (2005), 44 (50), 16491-16501  
CODEN: BICHAW; ISSN: 0006-2960

American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nogo-66 receptor (NgR1) is a leucine-rich repeat (LRR) protein that forms part of a signaling complex mediating axon regeneration. Previous studies have shown that the entire LRR region of NgR1, including the C-terminal cap of the LRR, LRCT, is needed for ligand binding, and that the adjacent C-terminal region (CT stalk) of the NgR1 contributes to interaction with its coreceptors. To provide structure-based information for these interactions, we analyzed the disulfide structure of full-length NgR1. Our anal. revealed a novel disulfide structure in the C-terminal region of the NgR1, wherein the two Cys residues, Cys-335 and Cys-336, in the CT stalk are disulfide-linked to Cys-266 and Cys-309 in the LRCT region. Cys-266 is linked to Cys-335, and Cys-309 to Cys-336. The other two Cys residues, Cys-264 and Cys-287, in the LRCT region are disulfide-linked to each other. The anal. also showed that Cys-419 and Cys-429, in the CT stalk region, are linked to each other by a disulfide bond. Although published crystal structures of a recombinant fragment of NgR1 had revealed a disulfide linkage between Cys-366 and Cys-309 in the LRCT region and we verified its presence in the corresponding fragment, this is artificially caused by the truncation of the protein, since this linkage was not detected in intact NgR1 or a slightly larger fragment containing Cys-335 and Cys-336. A structural model of the LRCT with extended residues 311-344 from the CT stalk region is proposed, and its function in coreceptor binding is discussed.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 17 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005-117342 HCAPLUS Full-text

DOCUMENT NUMBER: 143-52639  
TITLE: Promoting the regeneration of axons within the central nervous system

AUTHOR(S): Park, James H.; Strittmatter, Stephen M.  
CORPORATE SOURCE: Department of Neurology, Yale University School of Medicine, New Haven, CT, USA  
SOURCE: From Neuroscience to Neurology (2005), 433-444.  
Editor(s): Waxman, Stephen. Elsevier Inc. : Burlington, Mass. ISBN: 0-12-738903-2  
Conference: General Review

DOCUMENT TYPE: Conference

LANGUAGE: English

AB A review. The peripheral nervous system axons, in contrast to the central nervous system, maintain their plasticity beyond the development of phase and remain capable of axonal regeneration after spinal cord injury. Progress in

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Identifying the mol. determinants promoting and inhibiting CNS axonal regeneration is discussed. Understanding how these determinants function, pharmacol. agents can be screened and medical treatments can be devised for the new therapeutic modality of axon regeneration in neuro-recovery.

REFERENCE COUNT: 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 18 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004-927061 HCAPLUS Full-text

DOCUMENT NUMBER: 141-406109  
TITLE: Treatment of conditions involving amyloid plaques

INVENTOR(S): Strittmatter, Stephen M.; Lee, Daniel H. S.; Li, Weiwei

PATENT ASSIGNEE(S) : USA  
SOURCE: PCT Int. Appl. , 43 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

----- A2 ----- WO 2004-0511728 20040416

WO 2004093893 A3 20050303

W: AE, AG, AL, AM, AT, AU, AZ, BR, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SY, TU, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RM: BW, CH, CM, KE, IS, MW, MZ, SD, SL, SZ, TZ, US, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, RU, TU, TM, AT, BB, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004231742 A2 20041104 AU 2004-231742 20040416

AU 2004231742 A1 20041104 CA 2004-2522649 20040416

CA 2522649 A2 20060118 EP 2004-759905 20040416

R: AT, BE, -CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

BR 200409562 A 20060418 BR 2004-9562 20040416

CN 1832752 A 20060913 CN 2004-80016319 20040416

JP 2006523708 T 20061019 JP 2006-510107 20050116

MX 2005PA11100 A 20060418 MX 2005-PR11100 20050114

IN 2005DN05397 A 20070817 IN 2005-DN4897 20051026

NO 2005005392 A 20051115 NO 2005-5392 20051115

US 2007065429 A1 200707322 US 2006-553669 20060809

PRIORITY APPLN. INFO.: US 2003-453424 P P 20030416

WO 2004-0511728 W 20040416

AB The invention provides methods for treating diseases involving aberrant amyloid- $\beta$  (Ab) peptide deposition, including Alzheimer's Disease, by the administration of Nogo receptor antagonists. The invention also provides method for reducing levels of Ab peptide in a mammal by the administration of soluble Nogo receptor polypeptides.

L151 ANSWER 19 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004-824033 HCAPLUS Full-text

p.14



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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NT, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZN, AM, AZ, BY, RG, KZ, MD, RU, TU, TM, AT, BE, BG, CH, CY, CZ, DE, DR, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BP, BJ, CP, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2495121 A1 2004 0319 2003-2495121 AU 2003-264033 AU 2003-264033 20030807 <-- EP 1534736 A2 20050601 EP 2003-785123 20030807 <-- R: AT, BE, CH, DE, DK, ES, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, DV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK A 20051012 CN 2003-821409 20030807 <-- JP 2004-5279560 T 20051124 JP 2004-5279560 20030807 <-- BR 2003-13311 A 20070324 BR 2004-264405 20040130 <-- AU 2004-2535007 CA 2004-2535007 20040130 <-- A1 20050224 A2 20050224 WO 2004-US2702 20040130 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NT, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TW, BW, GH, GM, KE, LS, MS, SD, SL, SZ, T2, UG, ZM, AM, AZ, BY, RG, KZ, MD, RU, TU, TM, AT, BE, BG, CH, CY, CZ, DE, DK, DK, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BP, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1660517 A2 20060331 EP 2004-707073 20040130 <-- R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, DV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK A 200613426 A 20061017 BR 2004-13426 20040130 <-- JP 2007051612 T 20070307 CN 2004-80225304 20040130 <-- CN 1946147 A 20070307 CN 2004-8029412 20040130 <-- NO 2005000685 A 20050510 NO 2005-685 20050209 <-- MX 2005PA01615 A1 20050128 MX 2005-PA1615 20050210 <-- US 2005271655 IN 2005-KN312 20050309 <-- IN 2005PA01615 A 20060512 IN 2006-PA1444 20060203 <-- MX 200601081 A 20060418 NO 2006-1081 20060306 <-- IN 2006-DN1161 A 20070810 IN 2006-DN1161 20060306 <-- P 2002-02866P WO 2003-US25004 W 20030807 <-- WO 2003-US325004 A 20030807 <-- WO 2004-US2702 W 20040130 <--

PRIORITY APPLN. INFO.: AB Disclosed are immunogenic Nogo receptor-1 polypeptides, Nogo receptor-1 antibodies, antigen-binding fragments thereof, soluble Nogo receptors and fusion proteins thereof and nucleic acids encoding the same. Also disclosed are compositions comprising, and methods for making and using, such Nogo receptor antibodies, antigen-binding fragments, humanized and chimeric antibodies thereof, soluble Nogo receptors and fusion proteins thereof and nucleic acids or viral vector encoding the same for gene therapy. These Nogo receptor-1 antagonists are useful for inhibiting growth cone collapse of neuron, decreasing inhibition of neurite outgrowth, promoting survival of CNS neuron and axonal growth, and are therefore useful for treating multiple sclerosis.

L151 ANSWER 22 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:20812 HCAPLUS Full-text  
DOCUMENT NUMBER: 140-87723  
TITLE: Modulators and modulation of the interaction between RGM and neogenin  
INVENTOR(S): Strittmatter, Stephen; Mueller, Bernhard;  
Deitinghoff, Lutz  
SOURCE: Yale University, USA  
PCT Int. Appl.: 50 pp.  
COPRN: PIXXD2  
Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:  
PATENT NO.: -->--  
WO 200403150 A2 20040108 WO 2003-0520147 20030626 <--  
WO 200403150 A3 20040826  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NT, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, T2, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TU, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
CA 2542171 A1 20040108 CA 2003-2542171 20030626 <-- AU 2003280420 A1 20040119 AU 2003-280420 20030626 <-- US 2006232101 A1 20061109 US 2005-519114 20050914 <-- PRIORITY APPLN. INFO.: US 2002-392052P P 20030626 <-- WO 2003-0520147 W 20030626 <-- AB This invention relates to drug screening using mammalian Neogenin. In addition, the invention provides for methods of preventing, alleviating or treating various disorders of the nervous system, angiogenic disorders or disorders of the cardio-vascular system and malignancies of different etiol. by disrupting the interaction between RGM and Neogenin.

L151 ANSWER 23 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:506882 HCAPLUS Full-text  
DOCUMENT NUMBER: 141-16459  
TITLE: Nogo receptor antagonism promotes stroke recovery by enhancing axonal plasticity  
AUTHOR(S): Lee, Jung-kil; Kim, Ji-Eun; Sivila, Michael; Strittmatter, Stephen M.  
CORPORATE SOURCE: Department of Neurology, Yale University School of Medicine, New Haven, CT, 06510, USA  
SOURCE: Journal of Neuroscience (2004), 24(27), 6209-6217  
PUBLISHER: Society for Neuroscience  
DOCUMENT TYPE:

10/553,669

**LANGUAGE:** English  
**AB** After ischemic stroke, partial recovery of function frequently occurs and may depend on the plasticity of axonal connections. Here, we examine whether blockade of the Nogo-Nogo Receptor (Ngr) pathway might enhance axonal sprouting and thereby recovery after focal brain infarction. Mutant mice lacking Ngr or Nogo-Ab recover complex motor function after stroke more completely than do control animals. After a stroke, greater nos. of axons emanating from the undamaged cortex cross the midline to innervate the contralateral red nucleus and the ipsilateral cervical spinal cord; this cortical/plug axonal plasticity are promoted by intrathecerebroventricular administration of a function-blocking Ngr fragment. Behavioral improvement occurs when therapy is initiated 1 wk after arterial occlusion. Thus, delayed pharmacol. blockade of the Ngr promotes subacute stroke recovery by facilitating axonal plasticity.

**REFERENCE COUNT:** 62 THERE ARE 62 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 24 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:384215 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:3771996  
 TITLE: Nogo-66 receptor prevents raphe spinal and rubrospinal axon regeneration and limits functional recovery from spinal cord injury

AUTHOR(S): Kim, Ji-Eun; Liu, Betty P.; Park, James H.; Strittmatter, Stephen M.  
 CORPORATE SOURCE: Departments of Neurology and Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA  
*Neuron* (2004), 44(3), 439-451  
 CODEN: NERNET; ISSN: 0896-6773  
 PUBLISHER: Cell Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

**AB** Axon regeneration after injury to the adult mammalian CNS is limited in part by three inhibitory proteins in CNS myelin: Nogo-A, MAG, and OMgp. All three of these proteins bind to a Nogo-66 receptor (Ngr) to inhibit axonal outgrowth *in vitro*. To explore the necessity of Ngr for responses to myelin inhibitors and for restriction of axonal growth in the adult CNS, we generated ngr -/- mice. Mice lacking Ngr are viable but display hypoactivity and motor impairment. DRG neurons lacking Ngr do not bind Nogo-66, and their growth cones are not collapsed by Nogo -66. Recovery of motor function after dorsal hemisection or complete transection of the spinal cord is improved in the ngr -/- mice. While corticospinal fibers do not regenerate in mice lacking Ngr -/-, regeneration of some raphe spinal and rubrospinal fibers does occur. Thus, Ngr is partially responsible for limiting the regeneration of certain fiber systems in the adult CNS.

**REFERENCE COUNT:** 30 THERE ARE 30 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 25 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:263762 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:28004  
 TITLE: A new role for Nogo as a regulator of  
 vaucular remodeling  
 AUTHOR(S): Acevedo, Lisette; Yu, Jun; Erdjument-Bromage, Hediye;  
 Mito, Robert Qing; Kim, Ji-Jun; Fulton, David; Tempst,  
 Paul; Strittmatter, Stephen M.; Sessa,  
 William C.

10/553,669

**CORPORATE SOURCE:** Boyer Center for Molecular Medicine, Department of Pharmacology and Program in Vascular Cell Signaling and Therapeutics, Yale University School of Medicine, New Haven, CT, 06536, USA  
*Nature Medicine* (New York, NY, United States) (2004), 10(4), 382-388  
 CODEN: NAMDFI; ISSN: 1078-8956  
 PUBLISHER: Nature Publishing Group  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
**AB** Although Nogo-A has been identified in the central nervous system as an inhibitor of axonal regeneration, the peripheral roles of Nogo isoforms remain virtually unknown. Here, using a proteomic anal. to identify proteins enriched in caveolae and/or lipid rafts (CER/UR), we show that Nogo-B is highly expressed in cultured endothelial and smooth muscle cells, as well as in intact blood vessels. The N terminus of Nogo-B promotes the migration of endothelial cells but inhibits the migration of vascular smooth muscle (VSM) cells, processes necessary for vascular remodeling. Vascular injury in Nogo-A/B-deficient mice promotes exaggerated neointimal proliferation, and adenosinral-mediated gene transfer of Nogo-B rescues the abnormal vascular expansion in those knockout mice. Our discovery that Nogo-B is a regulator of vascular homeostasis and remodeling broadens the functional scope of this family of proteins.

**REFERENCE COUNT:** 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 26 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:646415 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:330089  
 TITLE: Neonatal hypoxia suppresses axonal sprouting in a rodent model for human prematurity  
 AUTHOR(S): Weisz, Jared; Takizawa, Bayan; McGee, Aaron; Stewart, William B.; Zhang, Heping; Ment, Laura; Schwartz, Michael; Strittmatter, Stephen  
 CORPORATE SOURCE: Department of Neurology, Yale University School of Medicine, New Haven, CT, 06520, USA  
*Experimental Neurology* (2004), 189(1), 141-149  
 CODEN: EXNEAC; ISSN: 0014-4886  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
**AB** Premature human infants frequently suffer from periventricular leukomalacia (PVL) characterized by the loss of central myelinated tracts in the brain (Neuropathol., 22 (2002) 193). Rodent chronic sublethal hypoxia (CSH) from P3 to 33 (postnatal day 3-33) provides a model for PVL characterized by cerebral ventriculomegaly and edema. In cerebral white matter volume [Brain Res. Dev. Brain Res. 111 (1998) 197; Proc. Natl. Acad. Sci. USA 100 (2003) 11718]. Here, the authors demonstrate that mice exposed to CSH from P3 to P35 followed by normoxia from P33 to P75 continue to exhibit a locomotor hyperactivity that resembles behavioral changes observed in some human children with very low birth wts. Because periventricular white matter is specifically lost in PVL, the authors examined the expression of oligodendrocyte proteins. Hypoxic rearing dramatically decreases the level of the axon outgrowth inhibitor Nogo-A in oligodendrocytes of CNS white matter at P12. The Nogo-A decrease exceeds the moderate decrease in another myelin protein, myelin associated glycoprotein (MAG). Although myelin protein expression returns to normal by maturity (P75), persistent abnormalities in axonal trajectories are detectable. Anterograde axonal tracing from motor cortex demonstrates ectopic

corticofugal fibers in the corticospinal tract (CST), corpus callosum, and caudate nucleus of adult animals reared in CNS. Thus, hypoxia-induced reduction in myelin-derived axon outgrowth inhibitors appears to contribute axonal misconnection to the pathol. of very low birth weight infants.

**REFERENCE COUNT:** 33 **THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT**

L151 ANSWER 27 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2003:416397 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 139-332941  
TITLE: Delayed systemic Nogo-66 receptor antagonist promotes recovery from spinal cord injury  
AUTHOR(S): Li, Shuxin; Strittmatter, Stephen M.  
CORPORATE SOURCE: Department of Neurology and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, 06520, USA  
SOURCE: Journal of Neuroscience (2003), 23(10), 4219-4227  
CODEN: JNRSDS; ISSN: 0270-6474  
PUBLISHER: Society for Neuroscience  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Traumatized axons possess an extremely limited ability to regenerate within the adult mammalian CNS. The myelin-derived axon outgrowth inhibitor Nogo, oligodendrocyte-myelin glycoprotein, and myelin-associated glycoprotein, all bind to an axonal Nogo-66 receptor (NgR) and at least partially account for this lack of CNS repair. Although the intrathecal application of an NgR competitive antagonist at the time of spinal cord hemisection induces significant regeneration of corticospinal axons, such immediate local therapy may not be as clin. feasible for cases of spinal cord injury. Here, we consider whether this approach can be adapted to systemic therapy in a postinjury therapeutic time window. S.C. treatment with the NgR antagonist peptide NB1-10 (Nogo extracellular peptide, residues 1-40) results in extensive growth of corticospinal axons, sprouting of serotonergic fibers, upregulation of axonal growth protein SPRRLA (small proline-rich repeat protein 1A), and synapse re-formation. Locomotor recovery after thoracic spinal cord injury is enhanced. Furthermore, delaying the initiation of systemic NB1-10 administration for up to 1 wk after cord lesions does not limit the degree of axon sprouting and functional recovery. This indicates that the regenerative capacity of transected corticospinal tract axons persists for weeks after injury. Systemic Nogo-66 receptor antagonists have therapeutic potential for subacute CNS axonal injuries such as spinal cord trauma.

**REFERENCE COUNT:** 50 **THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT**

L151 ANSWER 28 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2003:222475 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 139-65687  
TITLE: Rho kinase inhibition enhances axonal regeneration in the injured CNS  
AUTHOR(S): Fournier, Alyson E.; Takizawa, Bayan T.; Strittmatter, Stephen M.  
CORPORATE SOURCE: Department of Neurology and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA  
SOURCE: Journal of Neuroscience (2003), 23(4), 1416-1423  
CODEN: JNRSDS; ISSN: 0270-6474  
PUBLISHER: Society for Neuroscience

**DOCUMENT TYPE:** Journal  
**LANGUAGE:** English  
AB Myelin-associated inhibitors limit axonal regeneration in the injured brain and spinal cord. A common target of many neurite outgrowth inhibitors is the Rho family of small GTPases. Activation of Rho and a downstream effector of Rho, p160ROCK, inhibits neurite out-growth. Here, we demonstrate that Rho is directly activated by the myelin-associated inhibitor Nogo-66. Using a binding assay to measure Rho activity, we detected increased levels of GTP Rho in PC12 and dorsal root ganglion (DRG) cell lysates after Nogo-66 stimulation. Rho activity levels were not affected by Amino-Nogo stimulation. Rho inactivation with C3 transferase promotes neurite outgrowth of chick DRG neurons in vitro, but with the delivery method used here, it fails to promote neurite outgrowth after corticospinal tract (CST) lesions in the adult rat. Inhibition of p160ROCK with Y-27632 also promotes neurite outgrowth on myelin-associated inhibitors in vitro. Furthermore, Y-27632 enhances sprouting of CST fibers in vivo and accelerates locomotor recovery after CST lesions in adult rats.

**REFERENCE COUNT:** 59 **THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT**

L151 ANSWER 29 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2003:450446 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 140-3143  
TITLE: Nogo-C is sufficient to delay nerve regeneration  
AUTHOR(S): Kim, Ji-Eun; Bonilla, Iris E.; Qiu, Dike; Strittmatter, Stephen M.  
CORPORATE SOURCE: Departments of Neurology and Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA  
SOURCE: Molecular and Cellular Neuroscience (2003), 23(3), 451-459  
CODEN: MCNEED; ISSN: 1044-7431  
PUBLISHER: Elsevier Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Axonal regeneration succeeds in the peripheral but not central nervous system of adult mammals. Peripheral clearance of myelin coupled with selective CNS expression of axon growth inhibitors, such as Nogo , may account for this reparative disparity. To assess the sufficiency of Nogo for limiting axonal regeneration, the authors generated transgenic mice expressing Nogo-C in peripheral Schwann cells. Nogo-C includes the panisomform inhibitory Nogo-66 domain, but not a second Nogo-A-specific inhibitory domain, allowing a selective consideration of the Nogo-66 region. The oct-5::nogo-c transgenic mice regenerate axons less rapidly than do wild-type mice after mid-thigh sciatic nerve crush. The delayed axonal regeneration is associated with a decreased recovery rate for motor function after sciatic nerve injury. Thus, expression of the Nogo-66 domain by otherwise permissive myelinating cells is sufficient to hinder axonal reexcretion after trauma.

**REFERENCE COUNT:** 31 **THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT**

L151 ANSWER 30 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2003:269429 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 139-130996  
TITLE: The Nogo-66 receptor: focusing myelin inhibition of axon regeneration  
AUTHOR(S): McGee, Aaron W.; Strittmatter, Stephen M.  
CORPORATE SOURCE: Departments of Neurology and Neurobiology, Yale University School of Medicine, New Haven,

CT, 06520, USA  
Trends in Neurosciences (2003), 26(4),  
193-198  
CODEN: TNSCDR ISSN: 0166-2236

PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
**AB** A review. CNS myelin inhibits axonal outgrowth *in vitro* and is a current obstacle to functional recovery following spinal cord injury. Current understanding of myelin-mediated inhibition are the members Nogo and the Nogo-66-receptor (Ngr). New findings implicate NgR in signal transduction for several myelin-associated inhibitors. Addnl. studies have identified a potential coreceptor p75NTR, and a second-messenger pathway involving RhoA that inhibits elongation. Although these findings expand our understanding of determinants of adult CNS axonal regrowth, the physiol. roles of associated inhibitors in the intact adult CNS remain ill-defined.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE IN THE RECORD. ALL CITATIONS AVAILABLE IN THE

L11511 ANSWER 31 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
0003-3777(01)00033-1 HCAPLUS Full-text  
ACCESSION NUMBER: 2003377761

**AUTHOR (S) :** Kim, Ji-Eun; Li, Shuxin; GrandPre, Tadzia; Qiu, Dike; Strittmatter, Stephen M.

**CORPORATE SOURCE:** Department of Neurology, Department of Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA

**SOURCE:** Neuron (2003), 38(2), 187-199.

**NOTES:** Nogo-A/B

**ABSTRACT:** Axon regeneration in young adult mice lacking Nogo-A/B

PUBLISHER: Cell Press  
DOCUMENT TYPE: Journal Article  
LANGUAGE: English  
ABSTRACT: After injury, axons of the adult mammalian brain and spinal cord exhibit little regeneration. It has been suggested that axon growth inhibitors, such as myelin-derived Nogo, prevent CNS axon repair. To investigate this hypothesis, we analyzed mice with a nogo mutation that eliminates Nogo-A/B expression. These mice are viable and exhibit normal locomotion. Corticospinal tract tracing reveals no abnormality in uninjured nogo-A/B<sup>-/-</sup> mice. After spinal cord injury, corticospinal axons of young adult nogo-A/B<sup>-/-</sup> mice sprout extensively rostral to a transection. Numerous fibers regenerate into distal cord segments of nogo-A/B<sup>-/-</sup> mice. Recovery of locomotor function is improved in these mice. Thus, Nogo-A plays a role in restricting axonal sprouting in the young adult CNS after injury.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

111151 ANSWER 32 OF 50 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002:276162 HCPLUS Full-text  
DOCUMENT NUMBER: 116:322700  
TITLE: Sequence homologs of the Nogo receptor and their use as targets for control of axonal growth in the treatment of neurological disease  
INVENTOR(S): Strittmatter, Stephen M.; Cate, Richard L.; Sah, Dinah W. Y.  
PATENT ASSIGNEE(S): Yale University, USA; Biogen, Inc.  
SOURCE: PCT Int. Appl. 277 PP.  
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OWNER

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029059	A2	20020411	WO 2001-US31488	20011006 <
WO 2002029059	A3	20030123		
WO 2002029059	A9	20030515		
W : AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, ES, EC, EE, FI, GB, GD, GE, GM, HR, ID, IL, IN, IS, JP, KE, KG, KR, ME, MK, MN, MW, NO, LS, LT, LU, LV, MA, MD, MG, MR, NL, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, US, UZ, VN, YU, ZA, ZW				
RW : GH, GM, KE, LS, MW, SD, SI, SZ, TZ, UG, 2W, AT, BE, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BP, BJ, CF, CI, CM, GA, GN, GQ, GR, ML, MR, NE, SN, TD, TG				
CA 242834	A1	20020411	CA 2001-242334	20011006 <
AU 200211519	A	20020415	AU 2002-11539	20011006 <
US 2003124704	A1	20030703	US 2001-972546	20011006 <
EP 132510	A2	20030709	EP 2001-979595	20011006 <
R : AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004528809	T	20040924	JP 2002-532629	20011006 <
NZ 525422	A	20060929	NZ 2001-525422	20011006 <
AU 200211539	B2	20070125	AU 2002-211539	20011006 <
US 2005048520	A1	20050303	US 2003-735256	20031212
US 7173118	B2	20070206		
US 2007104713	A1	20070510	US 2006-544131	20061006
US 2007104713	U	20070510	US 2006-544131	20061006

**AB** The invention relates generally to genes that encode proteins that inhibit axonal growth. The invention also includes compounds and methods for modulating the expression and activity of Nogo and the NGR proteins. Specifically, the invention includes peptides, proteins and antibodies that block Nogo-mediated inhibition of axonal extension. The compounds and methods of the invention are useful in the treatment of cranial or cerebral trauma, spinal cord injury, stroke or a demyelinating disease. The homologs were identified by TBLASTN querying of human and mouse genomic sequence databases.

L151 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003-844092 HCPIUS Full-text  
DOCUMENT NUMBER: 138-252149  
TITLE: Truncated soluble Nogo receptor binds Nogo-66 and blocks inhibition of axon growth by myelin.  
AUTHOR(S): Fournier, Alyson B.; Gould, Graham C.; Liu, Betty P.; Strittmatter, Stephen M.  
CORPORATE SOURCE: Department of Neurology and Section of Neurobiology,  
Yale University School of Medicine, New Haven,  
CT, 06510, USA  
SOURCE: Journal of Neuroscience (2002), 22 (20), 9876-9881

10/553,669

CODEN: JNRSDS; ISSN: 0270-6474  
Society for Neuroscience  
Journal

DOCUMENT TYPE:

English

AB CNS myelin contains axon outgrowth inhibitors, such as Nogo, that restrict regenerative growth after injury. An understanding of the mechanism of Nogo signaling through its receptor (Ngr) is critical to developing strategies for overcoming Nogo-mediated inhibition. Here we analyze the function of Ngr domains in outgrowth inhibition. Anal. of alkaline phosphatase (Ap)-Nogo binding in COS-7 cells reveals that the leucine-rich repeat domain is necessary and sufficient for Nogo binding and Ngr multimerization. Viral infection of embryonic day 7 chick retinal ganglion cells with mutated Ngr demonstrates that the Ngr C-terminal domain is required for inhibitory responses. From this anal., we have developed a soluble, truncated version of the Nogo substrates. These data suggest that Ngr mediates a significant fraction of myelin inhibition of axon outgrowth.

30 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
REFERENCE COUNT: 30

L151 ANSWER 34 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002-519542 HCAPLUS Full-Text  
DOCUMENT NUMBER: 137-260565  
TITLE: Localization of Nogo-A and Nogo-66  
receptor proteins at sites of axon-myelin and synaptic contact

Wang, Xingxing; Chun, Soo-Jin; Treloar, Helen;  
Varanian, Timothy; Greer, Charles A.;  
Strittmatter, Stephen M.  
Department of Neurology, Yale University  
School of Medicine, New Haven, CT, 06510, USA  
Journal of Neuroscience (2002), 22(13), 5505-5515

CODEN: JNRSDS; ISSN: 0270-6474  
Society for Neuroscience  
Journal

DOCUMENT TYPE:

English

AB Axon regeneration in the adult CNS is limited by the presence of inhibitory proteins. An interaction of Nogo on the oligodendrocyte surface with Nogo-66 Receptor (Ngr) on axons has been suggested to play an important role in limiting axonal growth. Here, we compare the localization of these two proteins immunohistochem. as a test of this hypothesis. Throughout much of the adult CNS, Nogo-A is detected on oligodendrocytes surrounding myelinated axons, including areas of axon-oligodendrocyte contact. The Ngr protein is detected selectively in neurons and is present throughout axons, indicating that Nogo-A and its receptor are juxtaposed along the course of myelinated fibers. Ngr protein expression is restricted to postnatal neurons and their axons. In contrast, Nogo-A is observed in myelinating oligodendrocytes, embryonic muscle, and neurons, suggesting that Nogo-A has addl. physiol. roles unrelated to Ngr binding. After spinal cord injury, Nogo-A is upregulated to a moderate degree, whereas Ngr levels are maintained at constant levels. Taken together, these data confirm the apposition of Nogo ligand and Ngr receptor in situations of limited axonal regeneration and support the hypothesis that this system regulates CNS axonal plasticity and recovery from injury.

23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
REFERENCE COUNT: 23

10/553,669

L151 ANSWER 35 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002-64765 HCAPLUS Full-Text  
DOCUMENT NUMBER: 138-2689  
TITLE: Myelin-associated glycoprotein as a functional ligand for the Nogo-66 receptor  
AUTHOR(S): Liu, Betty P.; Fournier, Alyson; Grandpre, Tadzia;  
CORPORATE SOURCE: Strittmatter, Stephen M.  
Department of Neurology and Section of Neurobiology,  
Yale University School of Medicine, New Haven,  
CT, 06510, USA  
SOURCE: Science (Washington, DC, United States) (2002  
), 297(5584), 1190-1193  
CODEN: SCIEAS; ISSN: 0036-8075  
American Association for the Advancement of Science  
Journal  
DOCUMENT TYPE:  
LANGUAGE: English  
AB Axonal regeneration in the adult central nervous system (CNS) is limited by two proteins in myelin, Nogo and myelin-associated glycoprotein (MAG). The receptor for Nogo (Ngr) has been identified as an axonal glycosyl-phosphatidyl-inositol (GPI)-anchored protein, whereas the MAG receptor has remained elusive. Here, we show that MAG binds directly with high affinity to Ngr. Cleavage of GPI-linked proteins from axons protects growth cones from MAG-induced collapse, and dominant neg. Ngr eliminates MAG inhibition of neurite outgrowth. MAG and Nogo-66 activate Ngr independently and serve as redundant Ngr ligands that may limit axonal regeneration after CNS injury.  
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
L151 ANSWER 36 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002-403264 HCAPLUS Full-Text  
DOCUMENT NUMBER: 137-362909  
TITLE: Nogo-66 receptor antagonist peptide promotes axonal regeneration  
AUTHOR(S): Grandpre, Tadzia; Li, Shuxin; Strittmatter,  
Stephan M.  
CORPORATE SOURCE: Department of Neurology and Section of Neurobiology,  
Yale University School of Medicine, New Haven,  
CT, 06510, USA  
SOURCE: Nature (London, United Kingdom) (2002),  
417(6888), 547-551  
CODEN: NATUAS; ISSN: 0028-0836  
Nature Publishing Group  
Journal  
DOCUMENT TYPE:  
LANGUAGE: English  
AB Myelin-derived axon growth inhibitors, such as Nogo, may account for the lack of axonal regeneration in the central nervous system (CNS) after trauma in adult mammals. A 66-residue domain of Nogo (Nogo-66) is expressed on the surface of oligodendrocytes and can inhibit axonal outgrowth through an axonal Nogo-66 receptor (Ngr). The IN-1 monoclonal antibody recognizes Nogo-A and promotes corticospinal tract regeneration and locomotor recovery; however, the undefined nature of the IN-1 epitope in Nogo, the limited specificity of IN-1 for Nogo, and nonspecific anti-Nogo effects have prevented a firm conclusion about the role of Nogo-66 or Ngr. Here, we identify competitive antagonists of Ngr derived from amino-terminal peptide fragments of Nogo-66. The Nogo-66 (1-40) antagonist peptide (NPB1-40) blocks Nogo-66 or CNS myelin inhibition of axonal outgrowth in vitro, demonstrating that Ngr mediates a significant portion of axonal outgrowth inhibition by myelin. Intrathecal administration of NPB1-40 to rats with mid-thoracic spinal cord hemisection results in significant axon growth of the corticospinal tract, and improves functional

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recovery. Thus, Nogo-66 and Ngr have central roles in limiting axonal regeneration after CNS injury, and NEP1-40 provides a potential therapeutic agent.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 37 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002:909304 HCAPLUS Full-text

DOCUMENT NUMBER: 138:300857

TITLE: Nogo and the Nogo-66 receptor  
Fournier, Alyson E.; Grandjean, Tadzia; Gould, Graham;  
Wang, Xinxing; Strittmatter, Stephen M.  
COPARTNER SOURCE: Department of Neurology and Section of Neurobiology,  
Yale University School of Medicine, New Haven,  
CT, 06510, USA  
SOURCE: Progress in Brain Research (2002),  
137 (Spinal Cord Trauma), 361-369  
CODEN: PBRM4, ISSN: 0079-6123

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal: General Review

LANGUAGE: English

AB A review. Nogo has been identified as a component of central nervous system (CNS) myelin preventing axonal regeneration in the adult vertebrate CNS. Our previous anal. of Nogo-A demonstrated that an axon-inhibiting 66 aa domain is expressed at the extracellular surface and the endoplasmic reticulum lumen of transfected cells and oligodendrocytes. We have identified a brain-specific, leucine-rich repeat protein with high affinity for soluble Nogo-66. Cleavage of the Nogo-66 receptor from axonal surfaces renders neurons insensitive to Nogo-66. Nogo-66 receptor expression is sufficient to impart Nogo-66 axonal inhibition to unresponsive neurons. With identified ligand and receptor components, structure-function determinants for inhibition of axon regeneration can now be mapped. The relative contribution of Nogo, myelin-associated glycoprotein, chondroitin sulfate proteoglycan and oligodendrocyte myelin glycoprotein to myelin inhibition can be assessed. Blockade of Nogo-66 interaction with its receptor provides one potential avenue to promote axonal regeneration after adult mammalian CNS injury.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 38 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002:654987 HCAPLUS Full-text

DOCUMENT NUMBER: 137:350109

TITLE: Modulation of axonal regeneration in neurodegenerative disease. Focus on Nogo  
Strittmatter, Stephen M.  
COPARTNER SOURCE: Department of Neurology, and Section of Neurobiology,  
Yale University School of Medicine, New Haven,  
CT, 06510, USA  
SOURCE: Journal of Molecular Neuroscience (2002),  
19(1/2), 117-121

CODEN: JMMNE5, ISSN: 0895-6696  
PUBLISHER: Humana Press Inc.  
DOCUMENT TYPE: Journal: General Review

LANGUAGE: English

AB A review. Recent work has demonstrated that axonal regeneration in the central nervous system is limited by myelin-derived Nogo binding to an axonal Nogo Receptor. The Nogo system appears to have a physiol. role in regulating structural plasticity. The possibility that the Nogo system contributes to pathol. and compensatory plasticity in Alzheimer's Disease is considered.

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

10/553,669

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 39 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2001:526105 HCAPLUS Full-text	135:11742	DOCUMENT NUMBER:	135:11742	TITLE: Protein and cDNA sequences of human and mouse Nogo receptors, and therapeutic uses thereof for diseases associated with Nogo receptor-mediated blockade of axonal growth
INVENTOR (S): Strittmatter, Stephen M.		PATENT ASSIGNEE (S):		Strittmatter, Stephen M.
SOURCE: PCT Int. Appl., 109 pp.		DOCUMENT TYPE:		PCT Int. Appl., 109 pp.
		LANGUAGE:		CODEN: PIXAD2
		FAMILY ACC. NUM. COUNT:		Patent
		PATENT INFORMATION:		3
PATENT NO.:	KIND:	DATE:	APPLICATION NO.:	DATE:
WO 2001051520	A2	20010719	WO 2001-US1041	20010112 <->
WO 2001051520	A3	20020418		
W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, IR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, RW, GH, GM, KB, LS, MW, SD, SL, S2, T2, UW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BE, BJ, CP, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	A9	20020718		
CA 2337199	A1	20010719	CA 2001-2337199	20010112 <->
AU 200122401	A	20010724	AU 2001-29401	20010112 <->
AU 784349	B2	20060316		
EP 1248803	A2	20021016	EP 2001-942367	20010112 <->
R: AT, BE, CH, DE, DK, ES, FR, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001007613	A	20031119	BR 2001-7613	20010112 <->
HU 2002003863	A2	20031028	HU 2002-3863	20010112 <->
JP 2003519481	T	20030624	JP 2001-551104	20010112 <->
EE 2002-386	A	20031215	EE 2002-386	20010112 <->
NZ 520065	A	20060224	NZ 2001-520065	20010112 <->
NZ 541694	A	20060831	NZ 2001-541694	20010112 <->
NZ 547791	A	20070427	NZ 1921-5477	20010112 <->
US 2002077295	A1	20020620	US 2001-972539	20010106 <->
US 7119165	B2	20061010		
IN 2002KN00830	A	20060922	IN 2002-KN890	20020703 <->
BG 106907	A	20030530	BG 2002-106907	20020705 <->
ZA 2002005403	A	20040120	ZA 2002-5403	20020705 <->
NC 2002003387	A	20020911	NC 2002-3387	20020712 <->
MX 2002PA06855	A	20040405	MX 2002-PA6855	20020712 <->
AU 2006200819	A1	20060323	AU 2006-200819	20060227 <->
PRIORITY APPLN. INFO. :				
AB A review. Recent work has demonstrated that axonal regeneration in the central nervous system is limited by myelin-derived Nogo binding to an axonal Nogo Receptor. The Nogo system appears to have a physiol. role in regulating structural plasticity. The possibility that the Nogo system contributes to pathol. and compensatory plasticity in Alzheimer's Disease is considered.				
11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS				
				p.27

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WO 2001-US1041

AB The invention provides protein and cDNA sequences of human and mouse Nogo receptor proteins and biol. active Nogo (ligand) protein fragments, which are members of the reticulin family proteins. Also disclosed are compns. and methods for modulating the expression or activity of the Nogo and Nogo receptor protein. Also disclosed are peptides which block Nogo-mediated inhibition of axonal extension. The compns. and methods of the invention are useful in the treatment of cranial or cerebral trauma, spinal cord injury, stroke or a demyelinating disease.

L151 ANSWER 40 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:785101 HCAPLUS Full-text

DOCUMENT NUMBER: 13:67265

TITLE: Nogo: A molecular determinant of axonal

growth and regeneration

Tardieu, GrandPre, Strittmatter, Stephen M.

Department of Neurology, Yale University

School of Medicine, New Haven, CT, 06520, USA

Neuroscience (2001), 7(5), 377-386

CODEN: NROSEJ, ISSN: 1073-8584

Sage Publications, Inc.

DOCUMENT TYPE: Journal: General Review

LANGUAGE: English

AB A review and discussion with many refs. Following injury, axons of the adult mammalian central nervous system (CNS) fail to regenerate. As a result, CNS trauma generally results in severe and persistent functional deficits. The inability of CNS axons to regenerate is largely associated with nonneuronal aspects of the CNS environment that are inhibitory to axonal elongation. This inhibition is mediated by the glial scar, including reactive astrocytes, and by the myelin-associated neurite outgrowth inhibitors chondroitin sulfate proteoglycans, myelin-associated glyco-protein, and Nogo. Nogo is an integral membrane protein that localizes to CNS, but not peripheral nervous system, myelin. In vitro characterization of Nogo has demonstrated its function as a potent inhibitor of axon elongation. In vivo neutralization of Nogo activity results in enhanced axonal regeneration and functional recovery following CNS injury as well as increased plasticity in uninjured CNS fibers. These findings suggest that Nogo may be a major contributor to the nonpermissive nature of the CNS environment.

REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 41 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:65960 HCAPLUS Full-text

DOCUMENT NUMBER: 13:205513

TITLE: Identification of a receptor mediating Nogo

-66 inhibition of axonal regeneration

Fournier, Alyson E.; GrandPre, Tadzia;

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Nature (London) (2001), 409 (6818), 341-346

CODEN: NATUAS, ISSN: 0028-0836

Journal

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nogo has been identified as a component of the central nervous system (CNS) myelin that prevents axonal regeneration in the adult vertebrate CNS. Anal. of Nogo-A has shown that an axon-inhibiting domain of 66 amino acids is

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expressed at cellular surface and at the endoplasmic reticulum lumen of transfected cells and oligodendrocytes. The acidic amino terminus of Nogo-A is detected at the cytosolic face of cellular membranes and may contribute to inhibition of axon regeneration at sites of oligodendrocyte injury. Here we show that the extracellular domain of Nogo (Nogo -66) inhibits axonal extension, but does not alter non-neuronal cell morphol. In contrast, a multivalent form of the N terminus of Nogo-A affects the morphol. of both neurons and other cell types. Here we soluble Nogo-66. Cleavage of the Nogo-66 receptor and other glycoprophosphatidylinositol-linked proteins from axonal surfaces renders neurons insensitive to Nogo-66. Nogo -66 receptor expression is sufficient to impart Nogo-66 axonal inhibition to unresponsive neurons. Disruption of the interaction between Nogo-66 and its receptor provides the potential for enhanced recovery after human CNS injury.

L151 ANSWER 42 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:175671 HCAPLUS Full-text

DOCUMENT NUMBER: 13:234759

TITLE: Repulsive factors and axon regeneration in the CNS

AUTHOR (S): Fournier, Alyson E.; Strittmatter, Stephen M.

CORPORATE SOURCE: Department of Neurology and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, 06520, USA

DOCUMENT TYPE: Current Opinion in Neurobiology (2001), 11(1), 89-94

PUBLISHER: Elsevier Science Ltd.

LANGUAGE: English

AB A review, with 46 refs. During the past year, a major advance in the study of axon regeneration was the mol. cloning of Nogo. The expression of Nogo protein by central nervous system (CNS) myelin may be a major factor in the failure of CNS axon regeneration. The effect of disrupting Nogo-dependent axon inhibition can now be studied conclusively. In related work, immunization with a Nogo -containing CNS myelin preparation was shown to promote regeneration and dramatic functional recovery after spinal cord trauma.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 43 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2000:97195 HCAPLUS Full-text

DOCUMENT NUMBER: 13:220197

TITLE: Identification of the Nogo inhibitor of axon

regeneration as a Reticulin protein

GrandPre, Tadzia; Nakamura, Fumio; Vartanian, Timothy;

AUTHOR (S): Strittmatter, Stephen M.

CORPORATE SOURCE: Department of Neurology, and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, USA

DOCUMENT TYPE: Nature (London) (2000), 403 (6768), 439-444

PUBLISHER: Nature Publishing Group

LANGUAGE: English

AB Adult mammalian axon regeneration is generally successful in the peripheral nervous system (PNS) but is dismal poor in the central nervous system (CNS). However, many classes of CNS axons can extend for long distances in peripheral nerve grafts. A comparison of myelin from the CNS and the PNS has revealed

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that CNS white matter is selectively inhibitory for axonal outgrowth. Several components of CNS white matter, N135, NI250 (Nogo) and MAG, that have inhibitory activity for axon extension have been described. The IN-1 antibody, which recognizes N135 and NI250(Nogo), allows moderate degrees of axonal regeneration and functional recovery after spinal cord injury. Here we identify Nogo as a member of the Reticulin family. Reticulin 4-A. Nogo is expressed by oligodendrocytes but not by Schwann cells and associates primarily with the endoplasmic reticulum. A 66-residue luminal/extracellular domain inhibits axonal extension and collapses dorsal root ganglion growth cones. In contrast to Nogo, Reticulin 1 and 3 are not expressed by oligodendrocytes, and the 66-residue luminal/extracellular domains from Reticulin 1, 2 and 3 do not inhibit axonal regeneration. These data provide a mol. basis to assess the contribution of Nogo to the failure of axonal regeneration in the adult CNS.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L151 ANSWER 44 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
DUPLICATE 8

ACCESSION NUMBER: 2003:47271 BIOSIS Full-text  
DOCUMENT NUMBER: PREV2003:0047271

TITLE: Consistent immunohistochemical detection of intracellular beta-amyloid42 in pyramidal neurons of Alzheimer's disease entorhinal cortex.

AUTHOR(S): D'Andrea, Michael R.; Nagle, Robert G.; Wang, Hou-Yan; Lee, Daniel H. S. [Reprint Author]; Biogen Inc., 14 Cambridge Center, Cambridge, MA, 01422, USA  
daniel.lee@biogen.com

SOURCE: Neuroscience Letters, (November 29 2002) Vol. 333, No. 3, pp. 163-166. print.  
ISSN: 0304-3940 (ISSN print).

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE:

Entered STN: 15 Jan 2003  
Last Updated on STN: 15 Jan 2003

AB We compared the effects of three pretreatment immunohistochemical techniques (no pretreatment, pepsin predigestion and heat pretreatment (HEAT)) for detecting intracellular beta-amyloid2 (Abeta42) in pyramidal neurons of formalin-fixed Alzheimer's disease (AD) cortices (n=5). Although all three protocols immunostained Abeta42 in amyloid plaques using four commercially-obtained Abeta42 specific antibodies, only the HEAT protocol consistently detected prominent intracellular Abeta42 in pyramidal neurons. This suggests that the Abeta42 present in amyloid plaques may be structurally distinct from that located within the neurons perhaps due to differential binding proteins coupling or a consequence of formalin fixation. Detection of an abundant intracellular Abeta42 in neurons may provide alternate explanations for the origin of dense-core amyloid plaques in AD cortices other than the conventional chronic extracellular Abeta42 deposition hypothesis.

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DUPLICATE 8

ACCESSION NUMBER: 2004:191837 BIOSIS Full-text  
DOCUMENT NUMBER: PREV2004:00190211

TITLE: The Nogo66 receptor as a drug discovery target for promoting CNS axon regeneration.

AUTHOR(S): Lee, D. H. S. [Reprint Author]; Li, J.-E.; Liu, B. P.; Li, W. [Reprint Author]; Kim, S.; Lee, D. H. S. [Reprint Author]; Li, M. [Reprint Author]; Ji, B. [Reprint Author]; Rabacchi, S. [Reprint Author]; Jirik, A. [Reprint Author]; Walus, L. [Reprint Author]; Strittmatter, S. M.

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Author]: Choi, E. [Reprint Author]; Silvian, L. [Reprint Author]; Thill, G. [Reprint Author]; Schauer, J. [Reprint Author]; Benedicti, N. J. [Reprint Author]; Chang, E. [Reprint Author]; Mi, S. [Reprint Author]; Shao, Z. [Reprint Author]; Lee, X. [Reprint Author]; Zhang, M. [Reprint Author]; Mullen, C. [Reprint Author]; Worley, D. [Reprint Author]; Care, R. [Reprint Author]; McCoy, J. [Reprint Author]; Sah, D. W. Y. [Reprint Author]; Pepinsky, B. [Reprint Author]; Relton, J. [Reprint Author]; Strittmatter, S. M.

CORPORATE SOURCE: Biogen Inc., Cambridge, MA, USA  
Journal of Neurochemistry, (February 2004) Vol. 88, No. Supplement 1, pp. 13. Print.

Meeting Info.: 6th Biennial Meeting of the Asian-Pacific Society for Neurochemistry (APSN), Hong Kong, China. February 04-07, 2004. Asian-Pacific Society for Neurochemistry.

CODEN: JONRRA9 ISSN: 0022-3042.

DOCUMENT TYPE: Conference; (Meeting Abstract)

LANGUAGE: English  
ENTRY DATE: Entered STN: 7 Apr 2004  
Last Updated on STN: 7 Apr 2004

L151 ANSWER 46 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
DUPLICATE 8

ACCESSION NUMBER: PREV2003:00293946 BIOSIS Full-text  
DOCUMENT NUMBER: PREV2003:00293946

TITLE: NEUTRALIZATION OF MYELIN - ASSOCIATED NOGO - A BY A NOGO RECEPTOR - Fc FUSION PROTEIN.

AUTHOR(S): Li, W. [Reprint Author]; Walus, L. [Reprint Author]; Jirik, A. [Reprint Author]; Pepinsky, B. [Reprint Author]; Sah, D. W. Y. [Reprint Author]; Lee, D. H. S. [Reprint Author]; Fournier, A.; Strittmatter, S.; Rabacchi, S. A.

CORPORATE SOURCE: BIOPRO, Inc., Cambridge, MA, USA  
Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No. 333-2. <http://sin.scholarone.com>. cd-rom.

Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 03-07, 2002. Society for Neuroscience.

CONFERENCE: Conference; (Meeting Poster)

DOCUMENT TYPE: Conference; (Meeting Abstract)

LANGUAGE: English  
ENTRY DATE: Entered STN: 25 Jun 2003  
Last Updated on STN: 25 Jun 2003

AB Nogo A plays a major role in the inhibitory activity of CNS myelin on axonal regeneration after CNS injury. We generated a secreted recombinant Nogo receptor-Fc fusion protein (Ig-sNogoR) and evaluated its ability to interfere with the Nogo-Nogo receptor interaction. CHO cells were transfected with a plasmid construct encoding the 1-310 residues of the extracellular domain of rat Nogo receptor fused with the Fc and hinge from rat IgG1. The secreted protein product was purified on protein A-Sepharose and characterized by N-terminal sequencing, SDS-PAGE, and Western blot and ELISA using antibodies raised against the Nogo receptor. Ig-sNogoR inhibits 125I-Nogo66 binding to the Nogo receptor in a scintillation proximity assay system with an IC50 apprx100nM. In addition, we tested Ig-sNogoR as a potential antagonist of the inhibitory effects of NogoA on P4 rat DRG neurite outgrowth *in vitro*. In this

assay, Ig-gNogor fully reverses the inhibitory effects of Nogoa-containing CNS myelin in a dose-dependent manner, with maximal protection seen at apprx0.5 μM. Thus, the NogorFc fusion protein disrupts the Nogoa-NgR interaction and promotes neurite growth in the presence of CNS myelin, further substantiating the role of Nogo and Nogor in axonal regeneration.

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interaction may activate ERKs and even tau protein phosphorylation further emphasize the roles of these proteins in Alzheimer's disease. To study the signal transduction mechanisms associated with the beta-amyloid42-alpha7nAChR interaction, here we report that in serum-starved SK-N-MC cells expressing alpha7nAChR, within a short time interval of even seconds of exposure to soluble, non-fibrillar beta-amyloid42, the cellular inositol tris-phosphate levels were elevated in a dose-dependent manner. The optimal dose of 10 nM beta-amyloid42 resulted in approx6-fold increase of cellular inositol tris-phosphates. This was accompanied by an exclusive recruitment of phosphoinositide C-gamma2 to the cytoplasmic signaling complex associated with alpha7nAChR as shown by co-immunoprecipitation and Western analyses. Blockade of the inositol tris-phosphate receptor and reduction of intracellular calcium by beta-amyloid42. These results suggest that the early signaling event of the beta-amyloid42-alpha7nAChR interaction involves the inositol phosphate pathway that will eventually lead to the activation of ERKs.

L151 ANSWER 50 OF 50 DRUGU COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2002-4730 DRUGU P Full-text  
 TITLE: Targeting intracellular Abeta42 for Alzheimer's disease drug discovery.  
 AUTHOR: D'Andrea M R; Lee D H S; Wang H Y; Nagel R G  
 CORPORATE SOURCE: Johnson+Johnson, Biogen; Univ. New York City;  
 UNIV. New-Jersey-Med.-+Dent.  
 LOCATION: Spring House, Pa., Cambridge, Mass., New York, N.Y.;  
 Stratford, N.J., USA  
 SOURCE: Drug Dev. Res. (56, No. 2, 194-200, 2002) 1 Fig. 79 Ref.  
 CODEN: DDREK  
 AVAIL. OF DOC.: CODEN: DDREK  
 Drug Discovery, Johnson and Johnson Pharmaceutical Research and Development, Welsh and McKeon Roads, Spring Hous., PA 19477, U.S.A. (e-mail: mdandrea@produs.jnj.com).  
 LANGUAGE: English  
 DOCUMENT TYPE: Journal  
 FIELD AVAIL.: AB; LA; CT  
 FILE SEGMENT: Literature  
 AB Regardless of the intracellular effects of Abeta (either awry signal transduction or simple obstruction of cell transport activities), the work summarized in this review led to the proposal of the alpha7 nicotinic acetylcholine receptor as a drug target for early intervention in Alzheimer's disease. Based on an inside-out hypothesis of dens-core plaque formation, it can be predicted that blockade of exogenous Abeta42 from entering vulnerable pyramidal neurons *in vivo* will reduce intraneuronal Abeta42 accumulation. This will, in turn, result in prolonging neuron survival time and hence, slow down the degeneration process. (No EX).

Text search history

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(FILE 'HCAPUS' ENTERED AT 10:48:08 ON 21 NOV 2007)

L100	23 S L98 AND L99	
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       170     OR NGR1?) (SA) (AGON? OR ANTAGON? OR RECEPT? OR PEPTID? OR  
       170     POLYPEPT?))  
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       184     10 SEA FILE-HCAPLUS ABB=ON PLU=ON L84 AND L85  
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       194     6 SEA FILE-HCAPLUS ABB=ON PLU=ON L93 AND L90  
       195     7 SEA FILE-HCAPLUS ABB=ON PLU=ON L93 AND L91  
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Text search results

L152 36 DUP REM L100 L146 (10 DUPLICATES REMOVED)  
ANSWERS '1-23' FROM FILE HCAPLUS  
ANSWERS '24-29' FROM FILE MEDLINE  
ANSWERS '30-32' FROM FILE BIOSIS  
ANSWERS '33-36' FROM FILE EMBASE

10/553,669

ANSWERS '1-23' FROM FILE HCAPLUS  
ANSWERS '24-29' FROM FILE MEDLINE  
ANSWERS '30-32' FROM FILE BIOSIS  
ANSWERS '33-36' FROM FILE EMBASE

L152 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2007:152708 HCAPLUS Full-text  
DOCUMENT NUMBER: 146:1293365  
TITLE: Novel modulators of amyloid- $\beta$  precursor protein processing

AUTHOR (S): Tang, Bor Luen; Liou, Yih Cherng  
CORPORATE SOURCE: Department of Biochemistry, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

SOURCE: Journal of Neurochemistry (2007), 100 (2), 314-323  
CODEN: JONRA9; ISSN: 0022-3042  
PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
ED Entered STN: 12 Feb 2007  
AB A review. Proteolytic processing of the amyloid precursor protein (APP) is modulated by the action of enzymes  $\alpha$ -,  $\beta$ - and  $\gamma$ -secretases, with the latter two mediating the amyloidogenic production of amyloid- $\beta$  ( $\text{A}\beta$ ). Cellular modulators of APP processing are well known from studies of genetic mutations (such as those found in APP and presenilins) or polymorphisms (such as the apolipoprotein E4  $\epsilon$ -allele) that predisposes an individual to early or late-onset Alzheimer's disease. In recent years, several classes of mol. with modulating functions in APP processing and  $\text{A}\beta$  secretion have emerged. These include the neuronal Munc-18 interacting proteins (Mint5/X11 $\beta$ , members of the reticulin family (RTN-3 and RTN-4 / Nogo-B), the Rho-66 receptor (NR), the peptidyl-prolyl isomerase Pin1 and the Rho family GTPases and their effectors. Mint5 and Ngr bind to APP directly, while RTN3 and Nogo-B interact with the  $\beta$ -secretase BACE1. Phosphorylated APP is a Pin1 substrate, which binds to its phospho-Thr68-Pro motif. These interactions by and large resulted in a reduction of  $\text{A}\beta$  generation both in vitro and in vivo. Inhibition of Rho and Rho-kinase (ROCK) activity may underlie the ability of non-steroidal anti-inflammatory drugs and statins to reduce  $\text{A}\beta$  production, a feat which could also be achieved by Rac1 inhibition. Detailed understanding of the underlying mechanisms of action of these novel modulators of APP processing, as well as insights into the mol. neurol. basis of how  $\text{A}\beta$  impairs learning and memory, will open up multiple avenues for the therapeutic intervention of Alzheimer's disease.

CC 144-0 (Mammalian Pathological Biochemistry)  
ST review amyloid precursor protein proteolytic processing Alzheimer disease

IT Alzheimer's Disease (type II; novel modulators of amyloid- $\beta$  precursor protein processing)

REFERENCE COUNT: 109 THERE ARE 109 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L152 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2007:822414 HCAPLUS Full-text

DOCUMENT NUMBER: 138:131224  
TITLE: The neurotrophin receptor p75NTR: novel functions and implications for diseases of the nervous system  
AUTHOR (S): Dechant, Georg; Barde, Yves-Alain

## CORPORATE SOURCE:

Max-Planck-Institute of Neurobiology, Martinsried,  
82152, Germany

Nature Neuroscience (2002), 5(11), 1131-1136

CODEN: NANEFR; ISSN: 1097-6256

Nature Publishing Group

Journal: General Review

## LANGUAGE:

English

Entered STN: 29 Oct 2002

AB A review. Neurotrophins have long been known to promote the survival and differentiation of vertebrate neurons. However, these growth factors can also induce cell death through the p75 neurotrophin receptor (p75NTR), a member of the tumor necrosis factor receptor superfamily. Consistent with a function in controlling the survival and process formation of neurons, p75NTR is mainly expressed during early neuronal development. In the adult, p75NTR is re-expressed in various pathol. conditions, including epilepsy, axotomy and neurodegeneration. Potentially toxic peptides, including the amyloid  $\beta$ - (A $\beta$ -) peptide that accumulates in Alzheimer's disease, are ligands for p75NTR. Recent work also implicates p75NTR in the regulation of both synaptic transmission and axonal elongation. It associates with the Nogo receptor, a binding protein for axonal growth inhibitors, and appears to be the transducing subunit of this receptor complex.

CC 2-0 (Mammalian Hormones)

Section cross-reference (SI): 14

REFERENCE COURT: 103 THERE ARE 103 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L152 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:973725 HCAPLUS Full-text  
DOCUMENT NUMBER: 147:21226

TITLE: RNA interference mediated inhibition of NOGO and Nogo receptor gene expression using short interfering nucleic acid (siRNA)  
INVENTOR(S): McSwiggen, James; Chowdhury, Bharat M.; Haeblerli, Peter  
SINA Therapeutics, Inc., USA.  
SER. NO. 826,966  
COUNTRIES: USA

PATENT ASSIGNEE(S): SINA Therapeutics, Inc., USA.

SOURCE: USXCCO

## DOCUMENT TYPE:

Patent

## LANGUAGE:

English

## FAMILY ACC. NUM. COUNT:

257

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007185043	A1	20070809	US 2007-576690	20070206 <->
US 9951819	A	19980511	AU 1998-51819	19980112 <->
AU 729657	B2	20010208	AU 1999-319188	19990713 <->
AU 9339168	A	19990316	AU 1999-319188	20000911 <->
AU 769175	B2	20040115	AU 2000-56616	20031203 <->
US 2005233329	A1	20051020	US 2003-722780	20040213 <->
US 2004249178	A1	20041209	US 2004-780447	20040416 <->
US 2005032733	A1	20050210	US 2004-826566	20040416 <->
WO 2005041859	A2	20050512	WO 2004-US13456	20040430 <->
WO 2005041859	A3	20070426		

ED Entered STN: 10 Aug 2007

AB This invention relates to compds., compns., and methods useful for modulating

NOCO and/or NOGO receptor gene expression using short interfering nucleic acid (siNA) mols by RNA interference. In particular, the instant invention features small nucleic acid mols., such as short interfering nucleic acid (siNA), short interfering RNA (siRNA), double-stranded RNA (dsRNA), micro-RNA (miRNA), and short hairpin RNA (shRNA) mols. and methods used to modulate the

10/553,669

WO	20050303	WO 2004-US16390	20040524 <->
WO 2005019453	A2	20050303	20040524 <->
WO 2005019453	A3	20051208	20040820 <->
W: AB, AG, AL, AM, AT, AU, HZ, BA, BB, BG, BR, BY, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HO, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NO, NZ, OM, PG, PH, PI, PT, RO, RU, SC, SD, SE, SG, SK, SI, SY, TJ, TM, TN, TR, TT, TZ, UR, VC, VN, YU, ZA, ZM, ZW			
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	expression of NOGO and/or NOGO receptor genes, such as NOGG-A, NOGO-B, NOGO-C, NOGO-D, NOGO-E receptor, NT-35, NT-220, NT-250, myelin-associated glycoprotein, tenascin-R, and NG-2. Such small nucleic acid mols. are useful in providing compounds for treatment of traits, diseases and conditions that can respond to traits, diseases and conditions, such as CNS injury, cerebrovascular accident, Alzheimer's disease, dementia, multiple sclerosis, chemotherapy-induced neuropathy, macular dysrophy, amyotrophic lateral sclerosis, Parkinsons disease, ataxia, Huntington's disease and or Crutzfeldt-Jacob disease.	IT	Interfering nucleic acid (siNA)			
INCL 51404000; 516023100 CC 6-3 (General Biochemistry)	NOGO receptor gene expression (si) : 1, 3, 63 NOGO receptor gene expression inhibition RNA interference; short interfering nucleic acid sequence NOGO receptor; neural disease therapy NOGO receptor siNA	IT	Double stranded RNA RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (small interfering; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
ST		IT	50-89-1, L-Deroy thymidine, biological studies 120-73-0, Purine Pyrimidine, 2'-Deoxy-2'-fluoro 14265-44-2, Phosphate, biological studies			
INCL 51404000; 516023100 CC 6-3 (General Biochemistry)	NOGO receptor gene expression (si) : 1, 3, 63 NOGO receptor gene expression inhibition RNA interference; short interfering nucleic acid sequence NOGO receptor; neural disease therapy NOGO receptor siNA	IT	56-14-4, Succinate, biological studies RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	56552-98-3, Glycerol succinate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	15181-41-6, Phosphorothioate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linkage, at 3'-end of antisense region, of siNA; RNA mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	69552-98-3, Glyceral succinate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linkage, f siNA; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	946028-87-1P 946028-92-8P 946028-97-3P 946028-02-3P 946028-07-8P 946028-12-5P 946028-17-0P 946029-22-7P 946029-27-2P 946029-32-9P 946029-37-4P 946029-42-1P 946029-47-6P 946029-52-3P 946029-57-8P 946029-62-5P 946029-67-0P 946029-72-7P 946029-77-2P 946029-82-9P 946029-87-4P 946029-92-1P 946029-97-6P 946030-02-0P 946030-07-5P	946028-88-2P 946028-93-9P 946028-98-4P 946029-03-4P 946029-08-9P 946029-13-6P 946029-14-7P 946029-19-2P 946029-23-8P 946029-28-3P 946029-33-0P 946029-38-5P 946029-43-2P 946029-48-7P 946029-53-4P 946029-58-9P 946029-63-6P 946029-68-1P 946029-73-8P 946029-79-4P 946029-83-0P 946029-88-5P 946029-94-3P 946029-99-7P 946029-04-2P 946030-05-3P	946028-90-6P 946028-95-1P 946029-00-1P 946029-05-6P 946029-10-3P 946029-15-8P 946029-25-0P 946029-30-7P 946029-34-1P 946029-35-2P 946029-39-6P 946029-40-3P 946029-45-4P 946029-50-1P 946029-55-6P 946029-59-0P 946029-65-8P 946029-70-5P 946029-75-0P 946029-81-1P 946029-85-2P 946029-91-0P 946029-96-3P 946029-01-1P 946030-06-4P	946028-91-7P 946028-96-2P 946029-01-2P 946029-06-7P 946029-11-4P 946029-16-9P 946029-26-1P 946029-31-8P 946029-36-3P 946029-41-1P 946029-46-6P 946029-51-1P 946029-56-4P 946029-61-3P 946029-66-1P 946029-71-6P 946029-76-1P 946029-80-4P 946029-85-0P 946029-91-0P 946029-96-3P 946029-01-1P 946030-06-4P
IT		IT	Antisense nucleic acids Double stranded RNA RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	Post-transcriptional processing (interference; RNA interference mediated inhibition of NOGO and NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	Polyribonucleotides RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linker, sense region of siNA is connected to antisense region via; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))			
IT		IT	Nucleotides, biological studies RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (siNA comprises; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short			

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	interfering nucleic acid (siNA)		
IT	Double stranded RNA RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (small interfering; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	50-89-1, L-Deroy thymidine, biological studies 120-73-0, Purine Pyrimidine, 2'-Deoxy-2'-fluoro 14265-44-2, Phosphate, biological studies		
IT	56-14-4, Succinate, biological studies RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	56552-98-3, Glycerol succinate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linkage, f siNA; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	15181-41-6, Phosphorothioate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linkage, at 3'-end of antisense region, of siNA; RNA mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	69552-98-3, Glyceral succinate RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linkage, f siNA; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	946028-87-1P 946028-92-8P 946028-97-3P 946028-02-3P 946028-07-8P 946028-12-5P 946028-17-0P 946029-22-7P 946029-27-2P 946029-32-9P 946029-37-4P 946029-42-1P 946029-47-6P 946029-52-3P 946029-57-8P 946029-62-5P 946029-67-0P 946029-72-7P 946029-77-2P 946029-82-9P 946029-87-4P 946029-92-1P 946029-97-6P 946030-02-0P 946030-07-5P	946028-88-2P 946028-93-9P 946028-98-4P 946029-03-4P 946029-08-9P 946029-13-6P 946029-14-7P 946029-19-2P 946029-23-8P 946029-28-3P 946029-33-0P 946029-38-5P 946029-43-2P 946029-48-7P 946029-53-4P 946029-58-9P 946029-63-6P 946029-68-1P 946029-73-8P 946029-79-4P 946029-83-0P 946029-88-5P 946029-94-3P 946029-99-7P 946029-04-2P 946030-05-3P	946028-90-6P 946028-95-1P 946029-00-1P 946029-05-6P 946029-10-3P 946029-15-8P 946029-25-0P 946029-30-7P 946029-34-1P 946029-35-2P 946029-39-6P 946029-40-3P 946029-45-4P 946029-50-1P 946029-55-6P 946029-59-0P 946029-65-8P 946029-70-5P 946029-75-0P 946029-81-1P 946029-85-2P 946029-91-0P 946029-96-3P 946029-01-1P 946030-06-4P
IT	Antisense nucleic acids Double stranded RNA RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	Post-transcriptional processing (interference; RNA interference mediated inhibition of NOGO and NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	Polyribonucleotides RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (linker, sense region of siNA is connected to antisense region via; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA))		
IT	Nucleotides, biological studies RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (siNA comprises; RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short		

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946030-13-3P 946030-14-4P 946030-15-5P 946030-16-6P  
 946030-17-7P 946030-18-BP 946030-19-9P 946030-20-2P 946030-21-3P  
 946030-22-4P 946030-23-5P 946030-24-6P 946030-25-7P 946030-26-8P  
 946030-27-9P 946030-28-0P 946030-29-1P 946030-30-4P 946030-31-5P  
 946030-32-6P 946030-33-7P 946030-34-8P 946030-35-9P 946030-36-0P  
 946030-37-1P 946030-38-2P 946030-39-3P 946030-40-6P 946030-41-7P  
 946030-42-8P 946030-43-9P 946030-44-0P 946030-45-1P 946030-46-2P  
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 946030-57-5P 946030-58-6P 946030-59-7P 946030-60-0P 946030-61-1P  
 946030-62-2P 946030-63-3P 946030-64-4P 946030-65-5P 946030-66-6P  
 946030-67-7P 946030-68-BP 946030-69-9P 946030-70-2P 946030-71-3P  
 946030-72-4P 946030-73-5P 946030-74-6P 946030-75-7P 946030-76-8P  
 946030-77-9P 946030-78-0P 946030-79-1P 946030-80-4P 946030-81-5P  
 946030-82-6P 946030-83-7P 946030-84-8P 946030-85-9P 946030-86-0P  
 946030-87-1P 946030-88-2P 946030-89-3P 946030-90-6P 946030-91-7P  
 946030-92-8P 946030-93-9P 946030-94-0P 946030-95-1P 946030-96-2P  
 946030-97-3P 946030-98-4P 946030-99-5P 946031-00-1P 946031-01-2P  
 946031-02-3P 946031-03-4P 946031-04-5P 946031-05-6P 946031-06-7P  
 946031-07-8P 946031-08-9P 946031-09-0P 946031-10-1P 946031-11-4P  
 946031-12-5P 946031-13-6P 946031-14-7P 946031-15-8P 946031-16-9P  
 946031-17-0P 946031-18-1P 946031-19-2P 946031-20-5P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (uses); (nucleotide sequence of short interfering nucleic acid; RNA receptor gene expression using short interfering nucleic acid)

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Xinqing Hospital, Third Military Medical University.  
 Chongqing, 400037, P.R. China  
 Chongqing Yixue (2007), 36(13), 1320-1322  
 CODEN: CYHJAD; ISSN: 1671-8348  
 Chongqing Yixue Bianjibu  
 Journal; General Review  
 Chinese

CORPORATE SOURCE: ED Entered STN: 04 Sep 2007  
 SOURCE: AB Studies on the bio. characteristics of Nogo protein and its receptors, and the effects of Nogo on the regeneration of central nervous system (CNS) and the diseases such as Alzheimer's disease (AD) and amyotrophic lateralizing sclerosis (ALS) are reviewed with 31 refs.

PUBLISHER: DOCUMENT TYPE:  
 LANGUAGE: ED  
 CC 14 (Mammalian Pathological Biochemistry)  
 ST review Nogo gene receptor; central nervous system  
 regenerations; review AD ALS

INDEXING IN PROGRESS IT  
 IT Alzheimer's disease  
 Central nervous system  
 Gene

Receptors  
 Regeneration, animal  
 (effects of Nogo on the regeneration and diseases of central nervous system)

L152 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006-515914 HCAPLUS Full-text  
 DOCUMENT NUMBER: 14-1058  
 TITLE: Methods of cell therapy, neurogenesis and oligodendrogenesis  
 INVENTOR(S): Eisenbach-Schwarz, Michal; Butovskiy, Oleg; Ziv, Yaniv; Kipnis, Jonathan; Ron, Noga  
 PATENT ASSIGNEE(S): Yeda Research and Development Co. Ltd., Israel  
 SOURCE: PCT Int. Appl. 276 PP.  
 CODEN: PIXADD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

IT 946031-21-6P 946031-22-7P 946031-23-8P 946031-24-9P 946031-25-0P  
 946031-26-1P 946031-27-2P 946031-28-3P 946031-29-4P 946031-30-5P  
 946031-31-8P 946031-32-9P 946031-33-0P 946031-34-1P 946031-35-2P  
 946031-36-3P 946031-37-4P 946031-38-5P 946031-39-6P 946031-40-9P  
 946031-41-0P 946031-42-1P 946031-43-2P 946031-44-3P 946031-45-4P  
 946031-46-5P 946031-47-6P 946031-48-7P 946041-81-3P 946048-82-4P  
 946048-83-5P 946048-84-6P 946048-85-7P 946048-86-8P 946048-87-9P  
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 946049-03-2P 946049-04-3P 946049-05-4P 946049-06-5P 946049-07-6P  
 946049-10-1P 946049-11-2P 946049-12-3P 946049-13-4P 946049-14-5P  
 946049-15-6P 946049-16-7P 946049-17-8P 946049-18-9P 946049-19-0P  
 946049-20-3P 946049-21-4P 946049-22-5P 946049-23-6P 946049-24-7P  
 946049-25-8P 946049-27-0P 946049-33-8P 946049-37-2P 946049-38-3P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (uses); (nucleotide sequence of short interfering nucleic acid; RNA receptor gene expression using short interfering nucleic acid (SINA))

IT 946032-01-7 946032-04-8 946032-05-9 946032-06-0  
 RL: PRP (Properties)  
 (unclaimed nucleotide sequence, RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (SINA))

L152 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007-58433 HCAPLUS Full-text  
 TITLE: Effects of Nogo on the regeneration and diseases of central nervous system  
 AUTHOR(S): Yan, Ji-wen; Huang, Qi-lin

PRIORITY APPLN. INFO.: US 2004-631163P P 20041129 -->  
 ED Entered STN: 02 Jun 2006  
 AB A method is provided for inducing and enhancing neurogenesis and/or oligodendrogenesis from endogenous as well as from exogenously administered stem cells, which comprises administering to an individual in need a neuroprotective agent such as a nervous system (NS)-specific antigen, a

peptide derived therefrom, T cells activated therewith, poly-YE, microglia activated by interferon- $\gamma$  and/or IL-4, and combinations thereof. The method includes stem cell therapy in combination with the neuroprotective agent.

IC ICM A61K  
CC 1-11 (Pharmacology)  
Section cross-reference(s) : 15

IT Proteins

RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\beta$ -, nervous system antigen; stimulating neurogenesis and oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and poly-YE and activated T cells or microglia)

IT Alzheimer's disease

Amnesia

Anti-Alzheimer's agents

Anticonvulsants

Antigen-presenting cell

Antiglaucoma agents

Antiparkinsonian agents

Antipsychotics

Anxiety

Anxiolytics

Cell activation

Central nervous system, disease

Central nervous system agents

Cockayne's syndrome

Cognition enhancers

Cognitive disorders

Combination chemotherapy

Drug dependence

Drug withdrawal

Epilepsy

Glaucoma (disease)

Hematopoietic precursor cell

Human

Mental and behavioral disorders

Multiple sclerosis

Nervous system agents

Neurogenesis

Neuron

Oligodendrocyte

Parkinson's disease

Peripheral nervous system, disease

Schizophrenia

Sjogren syndrome

Stem cell

T cell (lymphocyte)

(stimulating neurogenesis and oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and poly-YE and activated T cells or microglia)

IT Amyloid

RU: PAC (Pharmacological activity); USES (Uses)

( $\beta$ -, nervous system antigen; stimulating neurogenesis and oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and poly-YE and activated T cells or microglia)

IT 888049-92-1 888049-93-2 888049-94-3 888049-95-4 888049-96-5

RU: PRP (Properties)  
(unclaimed nucleotide sequence; methods of cell therapy, neurogenesis and oligodendrogenesis)

IT 888049-97-6 888049-98-7 888050-03-1 888050-04-2 888050-05-3

RU: PRP (Properties)

(unclaimed sequence; methods of cell therapy, neurogenesis and oligodendrogenesis)

L152 ANSWER 6 OF 16 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006-470210 HCPLUS Full-text  
DOCUMENT NUMBER: 144-482222

TITLE: Leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis

INVENTOR(S) : Michalovich, David; White, Simon John; Yorke, Melanie;

Maundrell, Kinsey Ares Trading S.A., Switz.  
PCT Int. Appl. , 168 EP.  
COPIN: PIXXD2

Patent

Language: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006051333	A2	20060518	WO 2005-GB4390	20051115 <->
WO 2006051333	A3	20060720		

W:	AB, AG, AL, AM, BT, AU, AZ, BR, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LJ, LY, MA, MD, MG, MN, MW, NY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TU, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, BB, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, SN, TD, TG, BW, GH, GM, RE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	AU 2005303536	AU 2005-303536
		CA 2886486	A1	20060518
		EP 1814903	A2	20070808
		R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU	EP 2005-903576	

PRIORITY APPLN. INFO. :

ED Entered STN: 19 May 2006	WO 2005-303536	AU 2005-303536	20051115 <->
	CA 2005-2586486	CA 2005-2586486	20051115 <->
	EP 2005-903576		20051115 <->

AB Four human proteins (termed INSPI168, INSPI168-SV1, INSPI149, and INSPI169) identified as leucine-rich repeat (LRR) motif containing proteins with similarity to PAL (photoreceptor-associated leucine-rich repeat protein) and to a Nogo receptor homolog are provided. The domain organization and function of these proteins allows for the design of screening methods capable of identifying compns. that are effective in the treatment and/or diagnosis of disease. INSPI168 has the capacity to stimulate intracellular signaling by inducing Stat-2 nuclear translocation in the human astrogloma cell line U373, suggesting a neuroprotective role. These proteins and nucleic acid sequences
--

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from their encoding genes are of use in the diagnosis, prevention, and treatment of disease.

CC 3-3 (Biochemical Genetics)

ST Section cross-reference (S) : 1, 6, 13, 63  
leucine rich repeat protein cDNA sequence human; neuroprotection leucine rich repeat protein; disease therapy diagnosis leucine rich repeat protein

IT AIDS (disease)

(AIDS dementia complex, diagnosis and treatment of; leucine-rich leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Mental and behavioral disorders

leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Brain, disease

Prion diseases(creutzfeldt-jakob, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Nervous system, disease

(Huntington's chorea, diagnosis and treatment of; leucine-rich leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Protein motifs

(LRR (leucine-rich repeat); leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Mental and behavioral disorders

(Pick's disease, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Nervous system, disease

(amyotrophic lateral sclerosis, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Eye, disease

(angioid streak, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Injury

(cerebral, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Brain, disease

(cerebrovascular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Eye, disease

(choroidal thrombosis, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Eye, disease

(choroidal vascular insufficiency, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Brain, disease

(injury, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

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(corticobasal degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Eye, disease

(cystoid macular edema, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Nervous system, disease

(degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Mental and behavioral disorders

(dementia, frontotemporal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Mental and behavioral disorders

(dementia, vascular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Mutation

(detection of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Eye, disease

(diabetic macular edema, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Eye, disease

(diabetic retinopathy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Eye, disease

(diabetic neuropathy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Alzheimer's disease

Central nervous system, disease

Peripheral nervous system, disease

Hermick-korakoff syndrome

Eye, neoplasm

Glucoma (disease)

Multiple sclerosis

Parkinson's disease

Central nervous system, disease

(diffuse lewy body disease, diagnosis and treatment of;

leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Gene targeting

(gene knock-out; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

IT Eye, disease

(hereditary optic atrophy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis)

IT Spinal cord, disease

(injury, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy)

IT	Nerve, disease (ischemia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in and diagnosis)	IT	Diagnosis (mol.; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Cardiovascular agents Drug screening	IT	Angiogenesis (neovascularization, ocular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Human	IT	Ischemia (neuronal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Molecular cloning	IT	Nerve, disease (neuropathy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Nervous system agents	IT	Cytoprotective agents Nervous system agents (neuroprotective agents; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Protein sequences	IT	Artery, disease (inflammation, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Test kits	IT	Vein, disease (occlusion, retinal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Vaccines	IT	Nerve, disease (optic neuropathy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	cDNA sequences	IT	Eye, disease (peripheral proliferation, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	(leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	Paraparesia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Primer (nucleic acid)	IT	Eye, disease (pigment epithelium, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Probe (nucleic acid)	IT	Eye, disease (pseudobulbar, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	RI: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)	IT	Eye, disease (retina, degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	(leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	Eye, neoplasm (pseudoglioma, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Antibodies and Immunoglobulins	IT	Eye, disease (retina, detachment, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	RI: BGU (Biological use, unclassified); BIOL (Biological study); USES (Uses)	IT	Eye, disease (macula, venile degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	(leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	Eye, disease (retina, macula, venile degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
IT	Fusion proteins (chimeric proteins)	IT	
IT	RI: THU (Therapeutic use); BIOL (Biological study); USES (Uses)	IT	
IT	(leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	
IT	Proteins	IT	
IT	RI: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PRBP (Preparation); USES (Uses)	IT	
IT	(leucine-rich repeat, INSP149; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	
IT	Proteins	IT	
IT	RI: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PRBP (Preparation); USES (Uses)	IT	
IT	(leucine-rich repeat, INSP168; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	
IT	Proteins	IT	
IT	RI: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PRBP (Preparation); USES (Uses)	IT	
IT	(leucine-rich repeat, INSP169; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	
IT	Eye, disease	IT	
IT	(macula, venile degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)	IT	

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RL: BPN (Biosynthetic preparation):	BSU (Biological study, unclassified);			
DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(amino acid sequence; leucine-rich repeat (LRR) motif-containing protein and their use in disease therapy and diagnosis);			
887379-82-0P	887379-84-2P			
887379-92-2P	887379-94-4P			
887379-92-2P	887379-94-4P			
887380-02-1P	887380-04-3P			
887380-02-1P	887379-96-6P			
887380-02-1P	887380-08-7P			
RL: BPN (Biosynthetic preparation):	BSU (Biological study, unclassified);			
DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(nucleotide sequence; leucine-rich repeat (LRR) motif-containing protein and their use in disease therapy and diagnosis);			
887379-65-9P	887379-67-1P			
887379-75-1P	887379-77-3P			
887379-85-3P	887379-87-5P			
887379-95-5P	887379-97-7P			
887380-05-4P	887380-07-6P			
887380-09-8	887380-10-1			
887380-14-5	887380-15-6			
887380-19-7	887380-20-3			
887380-24-7	887380-25-8			
RL: PRP (Properties)	(unclaimed nucleotide sequence; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)			
887380-27-0	887380-28-1			
RL: PRP (Properties)	(unclaimed protein sequence; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)			
2 ANSWER 7 OF 36	HCAPIUS COPYRIGHT 2007 ACS on STN			
SESSION NUMBER:	2006-149554 HCAPIUS Full-text			
DOCUMENT NUMBER:	144-1226316			
ROLE:	Modulation of tumor necrosis factor receptor TAF signalling for control of neurite outgrowth in treatment of CNS disorders			
INVENTOR(S):	Mi, Sha; Browning, Jeffrey L.			
ASSIGNEE(S):	Biogen Idec Ma Inc., USA			
SOURCE:	PCT Int. Appl. , 138 pp.			
CODEN: PIXD2	Patent			
DOCUMENT TYPE:	English			
JUDGAE:	1			
ENTITLED ACC. NUM. COUNT:				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006017673	A2	20060216	WO 2005-US27773	20050803
WO 2006017673	A3	20070412		
W: AE, AG, AL, AM, AT, AU, BR, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LG, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU,				
RN: AT, BB, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HD, IE, IS, IT, LT, LU, LV, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CG, CI, CR, GA, GR, GO, GU, HK, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, GN, KE, LS, MW, MZ, NA, SD, SL, SZ, T2, TG, TD, TG, WH, ZW, AM, AZ, BY,				

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CA 2576193 US 2006058223 EP 1189070	KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA A1 A1 R: AT, BE, BG, CH, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU	20060216 20060316 20070530	CA 2005-2576193 US 2005-195551 EP 2005-783641	20050803 <-- 20050803 <-- 20050803 <--	IT Brain (TAJ expression in; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
CN 101014245	INFO : A	20070808	CN 2005-80026572 US 2004-598247P WO 2005-US27773	20050803 <-- 20040803 <-- 20050803 W	IT Fusion proteins (chimeric proteins) RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (TAJ fusion with FC IgG1; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
ED PRIORITY APPLN. INFO :	Entered STN: 17 Feb 2006 The invention provides methods of treating diseases, disorders, injuries, or conditions involving modulating neurite outgrowth and/or survival, including central nervous system (CNS) disorders, stroke, or spinal injury, by administration of a TAJ antagonist. Purified mouse TAJ protein fused to the hinge and FC region of human IgG1 was shown to bind the Nogo receptor 1 (NgR1) and LINGO-1 protein. Expression studies demonstrated that TAJ protein is expressed in a wide range of tissues within the mouse brain, with stronger expression during embryogenesis than during adulthood. OMGP (oligodendrocyte myelin glycoprotein) treatment of COS cells expressing TAJ, LINGO-1 and NgR1 resulted in increased RhoA activation, suggesting that expression of TAJ, LINGO-1 and NgR1 was sufficient to reconstitute a functional MAF1 receptor capable of downstream signaling. Lastly, the effect of TAJ upon upon neurite outgrowth was demonstrated in rodent models. This invention is intended to be applied towards treatment of human central nervous system disorders or injuries.			IT Immunoglobulin receptors RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (TAJ fusion with IgG1; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
CC	Section cross-reference(s): 3, 6, 14			IT Tumor necrosis factor receptors RU: BPN (Biological preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Preparation); USES (Uses) (TAJ; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
ST	human tumor necrosis factor receptor TAJ sequence; TNFR TAJ assoc NgR1 LINGO1 signaling Rhoa activation; TAJ signaling neurite outgrowth rodent model human disease therapy			IT Nervous system, disease (anotrophic lateral sclerosis; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	Myelin			IT Epitopes (antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			IT Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	Nervous system, disease (Huntington's chorea; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)			IT Injury (axon; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			IT Injury (central nervous system, transection; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			IT Neuron (cerebellar granule; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			IT Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chimeric antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	Glycoproteins			IT Nerve, disease (degeneration, CNS; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	
IT	RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			IT Molecular association	

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IT	Nerve, disease (disease neuropathy; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	(monoclonal antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Axon (disease, injury; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
IT	Gene, animal RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (encoding TAJ; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	(monoclonal, monoclonal antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Gene targeting (gene knock-out, of TAJ gene, in mice; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Nerve, disease (optic nerve injury; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)	IT Injury (spinal cord; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	(humanized, antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Injury (spinal; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Central nervous system, disease (injury, transection; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Ganglion (stroke; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Spinal cord, disease (injury; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Brain, disease (stroke; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	post-transcriptional processing (interference; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT Protein sequences (tumor necrosis factor receptor TAJ, from human; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
IT	Alzheimer's disease Analgesics Antibiotics Axon Central nervous system Drug screening Genetic engineering Human Molecular cloning Multiple sclerosis Oligodendrocyte Parkinson's disease Signal transduction, biological Signaling nucleic acids Corticosteroids, biological studies Promoter (genetic element) Rho protein (G protein) (modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT 876331-83-8 RU: BSU (Biological study, unclassified); PRP (Properties); THU (Biological study); USES (Uses)
IT	Genetic engineering Human Molecular cloning Multiple sclerosis Oligodendrocyte Parkinson's disease Signal transduction, biological Signaling nucleic acids Corticosteroids, biological studies Promoter (genetic element) Rho protein (G protein) (modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT 280545-70-2, GENBANK AB040434 291801-31-5, GENBANK BAB03269 386583-22-8, GenBank AP446399 386583-24-0, GenBank AP47000 480697-79-8, GenBank AAK28396 487736-40-3, GenBank AAK28397 497742-55-9, GENBANK BC047221 623669-56-7, GENBANK AAH47221 RU: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
IT	Central nervous system Drug screening Genetic engineering Human Molecular cloning Multiple sclerosis Oligodendrocyte Parkinson's disease Signal transduction, biological Signaling nucleic acids Corticosteroids, biological studies Promoter (genetic element) Rho protein (G protein) (modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT 876332-29-5 876332-30-8 876332-33-1 876332-34-2 876332-42-2 876332-38-6 876332-39-7 876332-40-0 876332-41-1 876332-46-4 RU: PRP (Properties)
IT	Molecular association (modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)	IT 876332-31-9 876332-35-3 876332-37-5

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RU: PRP (Properties)  
 (unclaimed protein sequence; modulation of tumor necrosis factor receptor TAF signaling for control of neurite outgrowth in treatment of CNS disorders)

IT 12224-47-9 130938-28-7 160918-30-9 244250-73-5 278595-84-9  
 455901-21-0 455901-22-1

RU: PRP (Properties)  
 (unclaimed sequence; modulation of tumor necrosis factor receptor TAF (signaling for control of neurite outgrowth in treatment of CNS disorders))

L152 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006120405 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:109624  
 TITLE: Monoclonal antibodies to human protein NOGO for the treatment and/or prophylaxis of neurological diseases

INVENTOR(S): Ellis, Jonathan Henry; Hamblin, Paul Andrew; Lewis, Alan Peter; Wilson, Paul Alexander

SOURCE: U.S. Pat. Appl. Publ.. 95 pp., Cont.-in-part of Appl. No. PCT/GB04/05325.

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006039603	A1	20060209	US 2005-177648	20050706 <--
WO 2005061544	A2	20050707	WO 2004-GB5125	20041220 <--
WO 2005061544	A3	20050818		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FT, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, NY, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TZ, UA, US, UZ, VC, VN, YD, ZA, ZM, ZW, RW, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, BE, ES, FI, FR, GB, GR, HU, IB, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			GB 2003-29684	A 20031222 <--
			GB 2003-29711	A 20031222 <--
			WO 2004-GB5325	20041220 <--

ED Entered STN: 09 Feb 2006  
 AB The present invention relates to humanized antibodies to human protein NOGO, pharmaceutical formulations containing them and to the use of such antibodies in the treatment and/or prophylaxis of neurol. diseases/disorders. Provided are sequences for monoclonal humanized NOGO antibodies.  
 INCL 42414100, 510389220

CC 15-3 (Immunochemistry)  
 Section cross-reference(s) : 3

IT Animal cell line  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

IT Animal cell line  
 (CHO, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Animal cell line  
 (COS, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Nervous system, disease (Huntington's chorea; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Animal cell line  
 (NSO, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Proteins  
 RU: BSU (Biological study, unclassified); BIOL (Biological study)  
 (Nogo A, domain Nogo-A56, antibody to; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Proteins  
 RU: BSU (Biological study, unclassified); BIOL (Biological study)  
 (Nogo, antagonist; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Animal cell line  
 (Sp2/0, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (chimeric; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Axon (contacting with antibody to promote sprouting; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Nerve, disease (degeneration, inhibiting; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Mental and behavioral disorders (dementia, Fronto-temporal, tauopathies; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Fibroblast (expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (heavy chain; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

IT Antibodies and Immunoglobulins  
 RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

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treatment and/or prophylaxis of neurol. diseases)		
Drug delivery systems (injections, i.v.; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	treatment and/or prophylaxis of neurol. diseases)
Spinal cord, disease (injury; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	Brain, disease (stroke; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (light chain; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence, 2A10 CDR-H1; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Animal cell (mammalian, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence, 2A10 CDR-H2; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Human Alzheimer's disease Anti-Parkinsonian agents Drug delivery systems	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence, 2A10 CDR-H3; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Molecular cloning Multiple sclerosis Nervous system, disease Nervous system agents Parkinson's disease Prophylaxis Protein sequences cDNA sequences	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence, 2A10 CDR-L1; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal, monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (monoclonal, monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Nerve, disease (neuropathy; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (neutralizing; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (outgrowth, sprouting promotion; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (mutagenesis; substitution; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Axon (epicordial; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)	IT	IT: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (epicordial; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

875357-00-9P 875357-01-ODP, mutated variants 875357-02-1P

875357-01-2P

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(unclaimed sequence; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT 875356-86-8

RU: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(amino acid sequence; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT 390291-55-1, GENBANK AJ251385 392124-39-3, GenBank AJ251384

391205-86-6, Genbank AU251383

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); (monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT 875356-52-8D, derivs. 875356-53-9D, derivs.

RU: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(nucleotide sequence; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

IT 875357-22-5

875357-23-6 875357-24-7 875357-25-8 875357-26-9

875357-27-0

875357-28-1 875357-29-2 875357-30-5 875357-31-6

875357-32-7

875357-33-8 875357-34-9 875357-35-0 875357-36-1

875357-37-2

875357-38-3 875357-39-4 875357-40-7 875357-41-8

875357-42-9

875357-43-0 875357-44-1 875357-45-2 875357-46-3

875357-47-4

875357-48-5 875357-49-6 875357-50-9 875357-51-0

875357-52-1

875357-53-2 875357-54-1 875357-56-5 875357-57-6

875357-58-7

875357-59-8 875357-60-1 875357-61-2 875357-62-3

875357-63-4

875357-64-5 875357-65-6 875357-66-7 875357-67-8

875357-68-9

875357-69-0 875357-70-3 875357-71-4

RL: PRP (Properties)

(unclaimed nucleotide sequence; monoclonal antibodies to human protein NOGO for the treatment and/or prophylaxis of neurol. diseases)

IT 247166-37-6

RL: PRP (Properties)

(unclaimed sequence; monoclonal antibodies to human protein NOGO for the treatment and/or prophylaxis of neurol. diseases)

L112 ANSWER 9 OF 36

HCAPLUS COPYRIGHT 2007 ACS on STN

2005-023596 HCAPLUS Full\_text

143:22540

Treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists

INVENTOR(S):

Reitner, Jane K.; Engber, Thomas M.; Stirnemann, Stephen M. Biogen Idec MA Inc., USA; Yale University

TITLE:

PCT Int. App1., 26 pp.

Patent

English

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NDM. COUNT: 1		PATENT INFORMATION:		APPLICATION NO. DATE	
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2005074972	A2	20050818	WO 2005-US2535	20050128 <--	
WO 20051222	A3	20051222			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MB, MD, MG, MN, MM, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, SM, RW: BW, GH, GM, KE, LS, MW, NA, SD, SL, SZ, TZ, TG, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TU, TM, AT, BE, BG, CH, CY, CZ, DB, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG	MR, NE, SN, TD, TG	AU 2005-210621	AU 2005-210621	20050128 <--	
CA 2005-2555018	A1	20050818	CA 2005-2555018	20050128 <--	
EP 1713494	A2	20061025	EP 2005-712127	20050128 <--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IB, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HO, PL, SK, BA, HR, IS, YU	CN 1946418	A	CN 2005-8009242	20050128 <--	
BR 2005007272	A	20070626	BR 2005-7272	20050128 <--	
JP 200719737	T	20070719	JP 2006-251456	20050128 <--	
MX 2006PA0392	A	20061030	MX 2006-PA8392	20060725 <--	
IN 2006DR04365	A	20070831	IN 2006-DNA4365	20060728 <--	
KR 200705237	A	20070521	KR 2006-217342	20060828 <--	
US 2004-540798P	P	20040130	US 2004-540798P	20050128 <--	
WO 2005-US2535	W	20050128	WO 2005-US2535	20050128 <--	

PRIORITY APPLN. INFO.: .

ED Entered STN: 19 Aug 2005

AB The invention provides methods for promoting regeneration or survival of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neuronal degeneration, including a human with Parkinson's disease, using Nogo receptor antagonists. The number of surviving dopaminergic neurons in the substantia nigra was significantly greater in Nogo receptor knockout mice compared to their heterozygote and wild-type litter-mate controls 4 wk after unilateral 6-hydroxydopamine injections. In addition, rotational behavior in response to apomorphine challenge was significantly lower in Nogo receptor-null mice. These data show increased neuronal survival and improved recovery of function in dopaminergic pathways in the brain after injury in mice lacking Nogo receptor. Treatment with the Nogo receptor antagonist sNgr(310)-Fc (soluble mature Nogo receptor fused with an Ig G fragment) increases cell survival and improved recovery in dopaminergic pathways in rat brain after injury. Thus, Nogo receptor antagonists comprising soluble Nogo receptor polypeptides, antibodies to the Nogo receptor protein, and small mol. may promote regeneration and survival of dopaminergic neurons in mammals displaying degeneration.

AB The invention provides methods for promoting regeneration or survival of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neuronal degeneration, including a human with Parkinson's disease, using Nogo receptor antagonists. The number of surviving dopaminergic neurons in the substantia nigra was significantly greater in Nogo receptor knockout mice compared to their heterozygote and wild-type litter-mate controls 4 wk after unilateral 6-hydroxydopamine injections. In addition, rotational behavior in response to apomorphine challenge was significantly lower in Nogo receptor-null mice. These data show increased neuronal survival and improved recovery of function in dopaminergic pathways in the brain after injury in mice lacking Nogo receptor. Treatment with the Nogo receptor antagonist sNgr(310)-Fc (soluble mature Nogo receptor fused with an Ig G fragment) increases cell survival and improved recovery in dopaminergic pathways in rat brain after injury. Thus, Nogo receptor antagonists comprising soluble Nogo receptor polypeptides, antibodies to the Nogo receptor protein, and small mol. may promote regeneration and survival of dopaminergic neurons in mammals displaying degeneration.

IC C1 IC A61K038-17

ICCS 1-11 (Pharmacology)

ST dopaminergic neuron degeneration Nogo receptor antagonist

IT Nervous system, disease (Hallervorden-Spatz disease; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonist)

IT Nervous system, disease

10/553,669

10/553,669

	(fusion products; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	(fusion products; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Nervous system, disease (Machado-Joseph; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Antibodies and Immunoglobulins (RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USSE (uses)) (monoclonal; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Receptors (RU: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USSE (uses)) (Nogo; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT (motor; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Disease, animal (Shy-Drager syndrome; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Nerve, disease (multiple system atrophy; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Nervous system, disease (X-linked dystonia-Parkinsonism; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Syphilis (neuro-; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Movement disorders (cerebral palsy; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Parkinson's disease (postencephalitic; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Brain (corpus striatum; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Paralysis (pseudobulbar; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Nervous system, disease (degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Antibodies and Immunoglobulins (RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USSE (uses)) (single chain; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Antibodies and Immunoglobulins (RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USSE (uses)) (diabodies; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Nervous system, disease (spinocerebellar atrophy; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Mental and behavioral disorders (diffuse Lewy body disease; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Brain (striatonigral tract, disease, degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Phagocyte (disease, Chediak-Higashi syndrome; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Brain (substantia nigra; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Nerve (dopaminergic, disease, degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Head and Neck, disease (trauma; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)
IT	Antibodies and Immunoglobulins (RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USSE (uses)) (fragments; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)	IT Alzheimer's disease (Antiparkinsonian agents Human Nerve regeneration Nerve system agents Parkinson's disease Prion diseases Protein sequences)
IT	Antibodies and Immunoglobulins (RU: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USSE (uses))	p.65

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**Rattus' disease**  
**Wilson's disease**  
 (treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

**IT Antibodies and Immunoglobulins**  
**RU: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); US\$**  
 (treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

**IT Parkinson's disease**  
 (vascular; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

**IT 862861-59-4** Nogo receptor (human precursor)  
 862861-61-8, 1-110-Nogo receptor (human)  
 862861-67-9, Nogo receptor (human) 862861-63-0,  
 1-310-Nogo receptor (Rattus) 862861-64-1,

**Nogo receptor (Rattus)**  
**RU: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**  
 (amino acid sequence; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists),

**IT 783350-09-4** 783350-10-7 783350-11-8  
 783350-12-9 783350-13-0 783350-14-1  
 783350-15-2 783350-15-3 783350-17-4  
 783350-18-5 783350-19-6 783350-20-9  
 783350-21-0 783350-22-1 783350-23-2  
 783350-24-3

**RU: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**  
 (peptide fragment of Nogo receptor; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

L152 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESS NUMBER: 2005:589035 HCAPLUS Full-text

DOCUMENT NUMBER: 143:114054 Humanized anti-human Nogo or NogoA

TITLE: protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease

INVENTOR (S): Hussain, Ishrath; Prininha, Rabinder Kumar  
 Glaxo Group Limited, UK  
 PCT Int. Appl., 53 pp.

CODEN: PIXXD2 Patent

DOCUMENT TYPE: English

LANGUAGE: FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2005061545 A2 20050707 WO 2004-GB5343 20041220 <--

WO 2005061545 A3 20050818

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NY, NT,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: BW, GH, GM, KE, LS, MW, NA, SD, SL, SZ, TZ, UG, ZM, AM,

AZ, BY, KG, KZ, MD, RU, TU, TM, AT, BE, BG, CH, CY, CZ, DE, DK,

EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GR, ML,

MR, NE, SN, TD, TG

EP 1706456 A2 20061004 EP 2004-GB6145 20041220 &lt;--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR, IS

PRIORITY APPLN. INFO.: GB 2003-29684 A 20031222 &lt;--

GB 2003-29711 A 20031222 &lt;--

WO 2004-GB5343 W 20041220 &lt;--

EP 1706456 A2 20061004 EP 2004-GB6145 20041220 &lt;--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR, IS

PRIORITY APPLN. INFO.: GB 2003-29684 A 20031222 &lt;--

GB 2003-29711 A 20031222 &lt;--

WO 2004-GB5343 W 20041220 &lt;--

ED Entered STN: 08 Jul 2005  
 AB Methods of modulating production of an amyloidogenic peptide is disclosed. Use of such methods in the treatment of diseases involving amyloidosis, for example Alzheimer's disease, is also disclosed.

IC ICM C07K016-22

IGS A61P025-28; C12N005-08

CC 15-3 (Immunohistochemistry)

ST human Nogo Nogo protein humanized antibody

amyloidosis neurodegenerative disease; Alzheimer disease amyloidogenic peptide modulator antibody Nogo antagonist

IT Proteins

RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); US\$ (Uses)

(Nogo, antagonist; humanized anti-human

Nogo or Nogo protein antibodies and

antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)

IT Proteins

RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); US\$ (Uses)

(Nogo antagonist; humanized anti-human

Nogo or Nogo protein antibodies and

antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)

IT Peptides, biological studies

RU: BSU (Biological study, unclassified); BIOL (Biological study)

(amyloidogenic; humanized anti-human Nogo or

Nogo protein antibodies and antagonists for

treating neurodegenerative disease, amyloidosis and

Alzheimer's disease)

IT Nervous system, disease

(degeneration; humanized anti-human Nogo or NogoA

protein antibodies and antagonists for treating

neurodegenerative disease, amyloidosis and Alzheimer's

disease)

IT Antibodies and Immunoglobulins

RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fragments; humanized anti-human Nogo or NogoA

protein antibodies and antagonists for treating

neurodegenerative disease, amyloidosis and Alzheimer's

disease)

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IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(heavy chain; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(light chain; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(mono-clonal; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(amino acid sequence; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(nucleotide sequence; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	(unclaimed nucleotide sequence; humanized anti-human Nogo or NogoA protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	treating neurodegenerative disease, amyloidosis and Alzheimer's disease)
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	treatment of stroke or other neurological diseases
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	Human Nogo protein-specific antibodies and derivatives
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	for treatment of stroke or other neurological diseases
IT	Antibodies and Immunoglobulins RL: BPN (Biосynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)	Christopher; Pranjha, Rabinder Kumar; Wilson, Paul; Robert Ian; Hussain, Farhana; McAdam, Ruth; Plumpton, Ellis, Jonathan Henry; Bon-Durval, Alexandre; Grundy,

10/553,669

Alexander

PATENT ASSIGNEE(S) :  
Globo Group Limited, UK  
SOURCE : PCT Int. Appl. , 143 pp.

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NMR. COUNT:

PATENT INFORMATION:

PATENT NO.:

KIND :

DATE :

APPLICATION NO.:

DATE :

10/553,669

RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NOGO-A; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Proteins
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NOGO-B; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Proteins
RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NOGO-C; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Fusion proteins (chimeric proteins)
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NOGO; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Animal cell line
(NSO; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Proteins
RU: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NOGO; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Animal cell line
(SP2/0; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Drug delivery systems
(carriers; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Injury
(cerebral; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Antibodies and Immunoglobulins
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Nervous system, disease (degeneration; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Antibodies and Immunoglobulins
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dementia, fronto-temporal; tauopathy; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Antibodies and Immunoglobulins
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fragments; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
IT Antibodies and Immunoglobulins
RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

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857512-48-2DP, humanized or chimeric derivs. 857512-50-6DP, humanized or chimeric derivs. 857512-51-7DP, humanized or chimeric derivs. 857512-52-8DP, humanized or chimeric derivs. 857512-60-8DP, humanized or chimeric derivs. 857512-61-9DP, humanized or chimeric derivs. 857512-63-1DP, humanized or chimeric derivs. RU: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (nucleotide sequence; human NOGO protein-specific antibodies and derivatives, for treatment of stroke or other neurol. diseases)

IT 247166-37-6 857514-52-4 857514-53-5 857514-54-6 857514-55-7 857514-56-8 857514-57-9 857514-58-0 857514-59-1 857514-60-4 857514-61-5 857514-62-6 857514-63-7 857514-64-8 857514-65-9 857514-66-0 857514-67-1 857514-68-2 857514-69-3 857514-70-6 857514-71-7 857514-72-8 857514-73-9 857514-74-0 857514-75-1 857514-76-2 857514-77-3 857514-78-4 857514-79-5 857514-80-8 RU: PRP (Properties) (unclaimed sequence; human NOGO protein-specific antibodies and derivs. (unclaimed sequence; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases))

RU: PRP (Properties) (unclaimed sequence; human NOGO protein-specific antibodies and derivs. (unclaimed sequence; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases))

#### L152 ANSWER 12 OF 36 HCPLUS COPYRIGHT 2007 ACS on STN

DOCUMENT NUMBER: 143:91068

TITLE: Methods of stimulating axonal growth of CNS neurons using Nogo receptor antagonists in combination with growth factors

INVENTOR(S): Benowitz, Larry I.; Fischer, Dietmar

SOURCE: Children's Medical Center Corporation, USA

PCT INT. APPL. 74 pp.

CODEN: PIXXD2

Patent

LANGUAGE: English

FAMILY ACC. NOM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2005059515	A2	20050630	WO 2004-US42255	20041216 <->	
WO 2005059515	A3	20060908			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UR, UG, US, UZ, VC, VN, YU, ZB, ZM, SM, RN: BN, CH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, AM, A2, BY, KG, KZ, MD, RU, TU, AT, BE, BG, CH, CY, C2, DE, DK, EE, ES, FI, FR, GB, GR, HU, IB, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, QM, ML, MR, NE, SN, TD, TG					
CA 2549000	A1	20050610	CA 2004-2549000	20041216 <->	
EP 1650501	A2	20060830	EP 2004-014339	20041216 <->	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SB, MC, PT, IE, SI, LT, LV, PI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU					
JP 2007514748	T	20070607	JP 2006-545428	20041216 <->	
PRIORITY APPN. INFO.: WO 2004-US42255			US 2003-529333P	P 20031216 <->	
PRIORITY APPN. INFO.: WO 2004-US42255			WO 2004-014339	W 20041216 <->	

ED Entered STN: 30 Jun 2005  
 AB The invention is based on the discovery that suppressing the activity of the Nogo receptor (NgR) alone does not result in extensive axon regeneration unless the intrinsic growth program of neurons is also activated. Accordingly, the invention is directed to methods of stimulating axon regeneration using a combination therapy wherein agents that inhibit NgR activity or downstream pathways activated by inhibitory signals are combined with agents that activate the growth pathway of neurons (e.g., polypeptide growth factors, activators of macrophages, purine nucleotides, or hexoses). The invention provides protein sequences for Nogo receptor peptide antagonists, including soluble Nogo receptor fragments. Rats were injected with an adeno-associated viral vector expressing Nogo receptor or a dominant-negative Nogo receptor (NgRN). After nerve crush and lens injury, animals expressing NgRN had approx. 3x more axon extensions than control animals expressing GFP reporter and 75x more axon extensions than animals expressing wild-type NgR. In another example, RhoA protein was inactivated by transgenic expression of Clostridium botulinum C3 ADP-ribosyltransferase. After lens injury, to activate the growth state of retinal ganglion cells, animals expressing the C3 transgene had 4.5x more axons that extended far beyond the injury site compared with uninjured animals expressing C3 transgene or non-transgenic injured animals. In both examples, the effects of transgenes on retinal ganglion cell growth were greater when cells were grown on myelin, an inhibitory substrate.

IC ICM GOIN

CC 1-11 (Pharmacology)

ST Section cross-reference(s): 2, 3, 6, 13, 15  
 CNS neuron regeneration method Nogo receptor antagonist; growth factor; protein sequence Nogo receptor peptide antagonist

IT Growth factors, animal  
 RU: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CNTF; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists  
 in combination with growth factors)

IT Nervous system, disease  
 (Friedreich's ataxia; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

IT Brain, disease  
 (Gilles de la Tourette syndrome; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

IT Nervous system, disease  
 (Huntington's chorea; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

IT Growth factors, animal  
 RU: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (NT-3; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists  
 in combination with growth factors)

IT Antibodies and Immunoglobulins  
 RU: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (NgR antagonist or NgR ligand-binding; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

IT Peptides, biological studies  
 RU: BPN (Biosynthetic Preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

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	(NgoR antagonists; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	(cerebral; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Receptor(s) RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PRBP (Preparation); USES (Uses)	IT	Nervous system, disease (choria, acanthocytic; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
	(NgoR; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR))	IT	Eye, disease (chronic progressive external ophthalmoplegia; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Proteins RL: BSU (Biological study, unclassified; BIOL (Biological study))	IT	Eye, disease (degeneration, Hallervorden-Spatz disease; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
	(NgoR; methods of stimulating axonal growth of CNS neurons in combination with growth factors)	IT	Brain, disease (degeneration, thalamic; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Mental and behavioral disorders (Pick's disease; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR))	IT	Mental and behavioral disorders (dementia, Gerstmann-Straussler-Scheinker disease; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
	Rho protein (G protein) RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)	IT	Mental and behavioral disorders (dementia, Lewy body disease; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	(RhoA, NgoR signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Mutagenesis (dominant-neg, NgoR; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
	Disease, animal (Shy-Drager syndrome; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Nervous system, disease (dyskinesia, Meige syndrome; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Nervous system, disease (amyotrophic lateral sclerosis; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Tremor (dystonia musculorum deformans; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
	Brain, disease (aneurysm; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Tremor (familial; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Disease, animal (atrophy, diffuse cerebral cortical; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Transgene (THU (Therapeutic use); BIOL (Biological study); USES (Uses))
	Muscle, disease (atrophy; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Gene, animal (for ADP-ribosyltransferase; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Neurotrophic factors RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)	IT	Gene, animal (THU (Therapeutic use); BIOL (Biological study); USES (Uses))
	(brain-derived; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)	IT	Ionophores (calcium, cAMP signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	G protein-coupled receptors RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)	IT	Neurotrophic factors (cAMP signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
		IT	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (for NGR; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgoR) antagonists in combination with growth factors)
IT	Aneurysm	IT	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

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(Clostridium botulinum C3; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 350811-10-8P 350811-11-9P 350811-12-0P 856266-29-0P RL: BPN (Biosynthetic Preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PRP (Preparation); USES (Uses) (Nogo receptor antagonist peptide using : methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 856265-30-3P 856265-38-1P 856266-39-2P 856266-40-5P, 1-344- Nogo receptor (human) 856266-41-6P, 1-310-Nogo receptor (human) 856266-42-7P, 1-314-Nogo receptor (Rattus) 856266-43-8P, 1-310-Nogo receptor (Rattus) 856266-45-0P, 856266-46-1P, 26-344- Nogo receptor (human) 856266-47-2P, 26-310- Nogo receptor (human) 856266-48-3P, 26-344- Nogo receptor (Rattus) 856266-49-4P, 27-344- Nogo receptor (Rattus) 856266-50-7P, 27-310- RL: BPN (Biosynthetic Preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PRP (Preparation); USES (Uses) (amino acid sequence; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 856266-44-9D, 1055-110-Protein Nogo A (human), N-terminal amidated, C-terminal acylated RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (amino acid sequence; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 7440-70-2, Calcium, biological studies 9012-42-4, Adenylate cyclase RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (cAMP signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 9036-21-9, cAMP phosphodiesterase 9040-59-9, 3',5'-Cyclic nucleotide phosphodiesterase RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (inhibitors, cAMP signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 60-92-4, Cyclic AMP RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (intracellular; methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 500116-22-1, GENBANK AF532658 RL: BUU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

IT 56-73-5, Glucose-6-phosphate 58-63-9, Inosine 3458-28-4, D-Mannose RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (methods of stimulating axonal growth of CNS neurons using Nogo receptor (Ngr) antagonists in combination with growth factors)

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(receptor (Ngr) antagonists in combination with growth factors)

IT 856273-14-8 856273-15-9

RL: PRP (Properties)

(unclaimed nucleotide sequence; methods of stimulating axonal growth of CNS neurons using Nogo receptor antagonists in combination with growth factors)

L1152 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:266024 HCAPLUS Full-text

DOCUMENT NUMBER: 144-387731

TITLE: Reticulins and  $\beta$ -secretase

AUTHOR (S): Araki, Wataru

CORPORATE SOURCE: Dep. Demyelinating Dis. Aging, Natl. Inst. Neurosci., National Center of Neurology and Psychiatry (NCNP), Kodaira, 187-8502, Japan

SOURCE: Dementia Japan (2005), 19(3), 266-272 CODEN: DEJAFB; ISSN: 1342-646X

Nippon Chiba Gakkai Journal, General Review

LANGUAGE: Japanese

DOCUMENT TYPE:

ED Entered STN: 23 Mar 2006

AB A review. Cerebral accumulation of amyloid  $\beta$ -protein (A $\beta$ ) is the main pathol. feature of Alzheimer's disease (AD).  $\beta$ -Secretase cleavage of amyloid precursor protein (APP) is catalyzed by the membrane-bound aspartyl protease BACE ( $\beta$ -site APP cleaving enzyme). Inhibition of BACE is one of the attractive therapeutic approaches for AD. Recently, we and others identified Nogo-B (reticulin 4-B) and its homolog reticulin 3 as BACE-interacting membrane proteins. These reticulin family proteins appear to neg. modulate A $\beta$  production through phys. association with BACE. The role of reticulin proteins in the regulation of BACE function is discussed.

CC 14-0-(Mammalian Pathological Biochemical)

ST review reticulin secretase BACE Alzheimer disease

IT Proteins

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(Nogo; reticulins and  $\beta$ -secretase (BACE) in amyloid  $\beta$ -protein accumulation in Alzheimer's disease)

IT Proteins

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(membrane, BACE-interacting, reticulin 3; reticulins and  $\beta$ -secretase (BACE) in amyloid  $\beta$ -protein accumulation in Alzheimer's disease)

IT Proteins

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(reticulins and  $\beta$ -secretase (BACE) in amyloid  $\beta$ -protein accumulation in Alzheimer's disease)

IT Amyloid

RL: BSU (Biological study, unclassified); BIOL (Biological study)

( $\beta$ -, reticulins and  $\beta$ -secretase (BACE) in amyloid

$\beta$ -protein accumulation in Alzheimer's disease)

IT 156736-49-3,  $\beta$ -Site APP cleaving enzyme (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

RJ: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(reticulars and  $\beta$ -secretase (BACE) in amyloid  $\beta$ -protein accumulation in Alzheimer's disease)

L152 ANWER 14 OF 36 HCAPLUS COPYRIGHT 2007 ACS-on STN  
ACCESSION NUMBER: 2004-927061 HCAPLUS Full-text

DOCUMENT NUMBER: 141:406109  
TITLE: Treatment of conditions involving amyloid plaques

INVENTOR(S): Strittmatter, Stephen M.; Lee, Daniel H. S.; Li, Weiwei

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2  
Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

SOURCE: WO 2004-093893  
WO 2004-093893  
WO 2005-0303

KIND: A2  
DATE: 20041104  
APPLICATION NO.: WO 2004-093893

DATE: 20040416 <--

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neuron diseases  
Mi, Sha; McCoy, John; Pepinsky, R. Blake; Lee, Daniel  
H. S.  
Biogen Idec Ma Inc., USA  
PCT Int. Appl. , 70 pp.  
CODEN: PIXXDD

DOCUMENT TYPE:  
LANGUAGE:  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

10/553,669

INVENTOR(S) :	RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PP (Properties); BIOL (Biological study); PREP (Preparation) (LINGO, Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
PATENT ASSIGNEE(S) :	IT Signal transduction, biological (NgR1, inhibition of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
SOURCE:	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
DOCUMENT TYPE:	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
LANGUAGE:	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
FAMILY ACC. NUM. COUNT:	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
PATENT INFORMATION:	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
PATENT NO.	KIND DATE APPLICATION NO. DATE
WO 2004085648	A2 20041007 WO 2004-US8323 20040317 <->
WO 2004085648	A3 20041118
W: AB, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FT, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KB, KG, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SY, TW, TM, TN, TR, TZ, US, UZ, VC, VN, YU, ZA, ZM, ZW	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
RU: BW, GH, GM, KE, LS, MW, SD, SL, SZ, TZ, VG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IB, IT, LU, MC, NL, PL, PT, RO, SE, SN, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, TD, TG	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
AU 2004223464	A2 20041007 AU 2004-223464 20040317 <->
AU 2004223464	A1 20041007
CA 2519227	A1 20041007 CA 2004-2519227 20040317 <->
EP 1606449	A2 20051221 EP 2004-757823 20040317 <->
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MI, CY, AL, TR, BG, CZ, EE, RU, PL, SK	IT Receptors RU: BSU (Biological study, unclassified); BIOL (Properties); BIOL (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
BR 200408501	A 20060314 BR 2004-0501 20040317 <->
CN 1798840	A 20060705 CN 2004-80013836 20040317 <->
JP 2007524370	T 20070830 JP 2006-307330 20040317 <->
IN 2005DND04119	A 20070831 IN 2005-404139 20050914 <->
US 2005059736	A 20070315 US 2005-553685 20051017 <->
NO 2005004836	A 20051019 NO 2005-4836 20051019 <->
PRIORITY APPLN. INFO. :	IT Polymers, biological studies RU: BSU (Biological study, unclassified); BIOL (Biological study) (conjugates, with protein Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
ED Entered STN: 08 Oct 2004	IT Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); BIOL (Biological study) (fragments, Fc, fused with Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
AB The invention provides Sp35 polypeptides and fusion proteins thereof, Sp35 antibodies and antigen-binding fragments thereof and nucleic acids encoding the same. The invention also provides compns. comprising, and methods for making and using, such Sp35 antibodies, antigen-binding fragments thereof, Sp35 polypeptides and fusion proteins thereof.	IT Nerve, disease (diabetic neuropathy, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IC ICM C12N015-12	IT Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); BIOL (Biological study) (fragments, Fc, fused with Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
ICG C12N015-62; C12N015-61; C07K014-47; C07K016-18; A61K038-17;	IT Drug delivery systems (injections, s.c.; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
CC 3-3 (Biochemical Genetics)	
Section cross-reference(s): 1, 6, 13	
ST protein sequence human Nogo receptor binding Sp35	
IT nervous system, disease (Huntington's chorea, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	

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<b>And therapeutic use for neuron diseases)</b>		
IT	Spinal cord, disease (injury, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Drug delivery systems (intrathecal, subdural; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT Brain, disease (stroke, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Repeat motifs (protein) (leucine-rich repeat; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT Antibodies and Immunoglobulins RJ: BSU (Biological study, unclassified); BIOL (Biological study (to Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases))
IT	Drug delivery systems (ophthalmic; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT Drug delivery systems (trauma, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Neuve, disease (optic nerve injury, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT IT Alzheimer's disease Central nervous system, disease Multiple sclerosis Parkinson's disease (treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Axon (outgrowth; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT 762413-55-8DP, Protein Sp35 (human), subfragments are claimed RJ: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation) (amino acid sequence; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Drug delivery systems (parenteral; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT 25322-68-3, Peg RJ: BSU (Biological study, unclassified); BIOL (Biological study (conjugated with protein Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases))
IT	Adenoviral vectors Anti-Alzheimer's agents Antiparkinsonian agents Baculoviridae Central nervous system Gene therapy Human Human herpesvirus 4 Human papillomavirus Lentiviral vectors Mammalia Molecular cloning Nervous system agents Protein sequences Vaccinia virus Viral vectors cDNA sequences	IT 762413-54-7 RJ: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (nucleotide sequence; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	(protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT 762413-63-8 RJ: PRP (Properties) (unclaimed nucleotide sequence; protein and cDNA sequences of a novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)
IT	Albumins, biological studies (serum, fused with Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)	IT 762273-66-5 RJ: BSU (Biological study, unclassified); BIOL (Biological study (serum, fused with Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases))
IT	Injury (spinal cord, treatment of; protein and cDNA sequences of	IT 762273-71-2 RJ: PRP (Properties) (unclaimed sequence; protein and cDNA sequences of a novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases)

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L152 ANSWER 16 OF 36	HCAPLUS	COPYRIGHT 2007 ACS on STN	A	20040130 <--
ACCESSION NUMBER:	2004:142908	HCAPLUS Full-text	A	20050209 <--
DOCUMENT NUMBER:	140:138086		A	20050210 <--
TITLE:	Nogo receptor antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury		A	20050210 <--
INVENTOR(S) :	Lee, Daniel H. S.; Pepinsky, R. Blake; Li, Weiwei; Rabachchi, Sylvia A.; Relton, Jane K.; Worley, Dane S.; Strittmatter, Stephen M.; Sah, Dinah Y. W.		A	20050309 <--
PATENT ASSIGNEE(S) :	Yale University USA; Biogen, Inc.		A	20060203 <--
SOURCE:	PCT Int. Appl., 133 pp.		A	20060306 <--
DOCUMENT TYPE:	Patent		A	20060306 <--
LANGUAGE:	English		A	20060306 <--
FAMILY ACC. NUM. COUNT:	1		A	20060307 <--
PATENT INFORMATION:			A	20060307 <--
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014311	A2	20040219	WO 2003-US25004	20030807 <--
WO 2004014311	A3	20040429		
w: AE, AG, AL, AM, AT, AU, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, IK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NJ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RG: GM, KE, LS, MM, MZ, SD, SZ, TZ, AM, AZ, BY, KG, KZ, MD, RU, TZ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, PR, GB, GR, HE, IE, IT, IJU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CT, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2495121	A1	20040219	CA 2003-2495121	20030807 <--
AU 2003264033	A1	20040225	AU 2003-264033	20030807 <--
EP 1534736	A2	20050501	EP 2003-785123	20030807 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EB, HU, SK				
CN 1681338	A	20051012	CN 2003-821409	20030807 <--
JP 2005535329	T	20051124	JP 2004-527360	20030807 <--
BR 2003013331	A	20070724	BR 2003-13331	20030807 <--
AU 2004264405	A1	20050224	AU 2004-264405	20040130 <--
CA 2535007	A1	20050224	CA 2004-2535007	20040130 <--
WO 2005016955	A2	20060720	WO 2004-US2702	20040130 <--
w: AB, AG, AL, AM, AT, AU, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, MV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RG: BW, GH, GM, KE, LS, MW, MZ, SD, SL, TZ, TG, ZW, AM, AZ, BY, KG, KZ, MD, RI, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HO, IB, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1660517	A2	20060531	EP 2004-070703	20040130 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SB, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004013426	A	20061017	BR 2004-13426	20040130 <--
JP 20070501612	T	20070201	JP 2006-522535	20040130 <--

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10/553,669

CN 1926147	A	20070307	CN 2004-80029412	20040130 <--
NO 2005000685	A	20050510	NO 2005-685	20050209 <--
MX 2005PA01615	A	20050819	MX 2005-PA1615	20050210 <--
US 2005271655	A1	20051208	US 2005-55163	20050210 <--
IN 2005KN00382	A	20060512	IN 2006-PN382	20050309 <--
MX 2006PA0144	A	20060515	MX 2006-PA144	20060203 <--
NO 200601081	A	20060418	NO 2006-1081	20060306 <--
IN 2006DN01161	A	20070810	IN 2006-DN1161	20060306 <--
PRIORITY APPLN. INFO. :			US 2002-402866P	P 200208-0
			WO 2003-US25004	W 20030807 <--
			WO 2003-US32504	W 20030807 <--
			WO 2004-US2702	W 20040130 <--

p.90

ED Entered STN: 22 Feb 2004				
AB Disclosed are immunogenic Nogo receptor-1 polypeptides, Nogo receptors and antibodies, antigen-binding fragments thereof, soluble fusion proteins thereof and fusion proteins thereof and nucleic acids encoding the same. Also disclosed are compns., comprising, and methods for making and using, such Nogo receptor antibodies, antigen-binding fragments, humanized and chimeric antibodies thereof, soluble Nogo receptors and fusion proteins thereof and nucleic acids or viral vector encoding the same for gene therapy. These Nogo receptor-1, antisognes are useful for inhibiting growth cone collapse of neuron, A15, Huntington's disease, Alzheimer's disease, Parkinson's disease, diabetes neuropathy, stroke, traumatic brain injury or spinal cord injury.				
IC ICM A61K 15-3 (Immunohistochemistry)				
CC Section cross-reference(s): 1, 63				
ST Nogo receptor antibody fragment soluble fusion protein				
IT survival neuron; axonal growth Nogo receptor antagonist gene humanized chimeric antibody				
IT Protein motifs				
IT C-terminal LRR domain; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury				
IT Nervous system, disease (Huntington's chorea; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)				
IT Antibodies and Immunoglobulins				
IT RI: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USSE (Uses)				
IT (IgG: Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)				
IT Protein motifs				
IT (IgG: Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)				
IT Glycoproteins				
IT RI: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USSE (Uses)				
IT (MAG (myelin-associated glycoprotein); Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)				
IT Glycoproteins				
IT RI: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USSE (Uses)				
IT (MAG (myelin-associated glycoprotein); Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)				
IT Protein motifs				
IT (N-terminal domain; Nogo receptor-1				

	IT	antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Alzheimer's disease	(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Animal cell line	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Central nervous system, disease	(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Drugs	Receptors
	IT	Gene therapy	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Genetic vectors	(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Human	Receptors
	IT	Mammalia	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Molecular cloning	(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Multiple sclerosis	Glycoproteins
	IT	Mus	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Parkinson's disease	(Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Protein sequences	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	Rattus	(OMGP (oligodendrocyte myelin glycoprotein); Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Rodentia	Hybridsoma
	IT	Viral vectors	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)
	IT	(Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	(PRA-4584-PTA-4588; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Antibodies and Immunoglobulins	Nervous system, disease
	IT	Antibodies and Immunoglobulins	(amyotrophic lateral sclerosis; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Fusion proteins (chimeric proteins)	Biology
	IT	Nucleic acids	(cell, host; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	Dimers	IT
	IT	RL: BSU (Biological study, unclassified); THU (therapeutic use); BIOL (Biological study); USES (uses)	Antibodies and Immunoglobulins
	IT	(Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (uses)
	IT	RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (uses)	(chimeric; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	(Biological study); USES (uses)	IT
	IT	(Nogo receptor-1 fusion protein; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	Antibodies and Immunoglobulins
	IT	Receptors	RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (uses)
	IT	RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (uses)	(fragments; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
	IT	(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	Antibodies and Immunoglobulins
	IT	Receptors	RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (uses)
	IT	IT	(fragments; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

10/553,669	(Therapeutic use); BIOL (Biological study); USBS (Uses) (heavy chain; Nogo receptor-1 antagonists for promoting CNS survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); PRP (Properties); THU (therapeutic use); BIOL (Biological study); USBS (Uses) (humanized; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	(neuron; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); PRP (Properties); THU (therapeutic use); BIOL (Biological study); USBS (Uses) (immunoadhesins; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	(outgrowth, promotion; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); PRP (Properties); THU (therapeutic use); BIOL (Biological study); USBS (Uses) (signal sequence; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	(signal sequence; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Drug delivery systems (immunoconjugates; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	(spinal cord; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Nerve, disease (inhibition; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT Brain, disease (stroke; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Nerve, disease (injury, inhibition; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT Brain, disease (trauma; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Proteins RU: BSU (Biological study, unclassified); PRP (Properties); THU (Biological study); USBS (Uses) (leucine-rich repeat; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT Ligands RU: BSU (Biological study, unclassified); PRP (Properties); THU (Biological study); USBS (Uses) (Nogo receptor-1; Nogo receptor -1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); PRP (Properties); THU (therapeutic use); BIOL (Biological study); USBS (Uses) (light chain; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT 42779-82-4, Genbank AF46290 RU: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Antibodies and Immunoglobulins RU: BSU (Biological study, unclassified); PRP (Properties); THU (therapeutic use); BIOL (Biological study); USBS (Uses) (monoclonal; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT 662152-33-2 RU: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USBS (Uses) (Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)
		IT	Cat death (neuron, inhibition; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)	IT 662384-33-0P, 1-344-Nogo receptor 1 (human) 662384-34-1P, 1-310-Nogo receptor 1 (human) 662384-35-2P, 1-344 Nogo receptor 1 (rat) 662384-36-3P, 1-310-Nogo receptor 1 (rat) 662384-37-4P, 662384-38-5P, 662384-39-6P RU: BPN (Biosynthetic Preparation); BSU (Biological study, unclassified);

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PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino acid sequence; Nogo receptor-1 antagonists for promoting survival of neuron and traumatic brain or spinal cord injury)

IT 662395-15-1 662395-16-2 662395-17-3

RL: PRP (Properties)

(unclaimed nucleotide sequence; nogo receptor: antagonists for promoting survival of neuron and traumatic brain or spinal cord injury)

IT 662397-79-7

RL: PRP (Properties)

(unclaimed sequence; nogo receptor: antagonists for promoting survival of neuron and traumatic multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

L152 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
DOCUMENT NUMBER: 2004:1639 HCAPLUS Full-text

DOCUMENT NUMBER: 140:16543

TITLE: Nogo receptor homolog protein 39C7

Nogo receptor homolog protein 39C7 from human and rat and therapeutic uses for diabetes and neurodegenerative diseases

INVENTOR (S): Orita, Satoshi; Shimazaki, Atsuyuki; Yanagimoto, Toru;

Nakajima, Masato; Oshima, Takeo

Shionogi & Co., Ltd.; Japan

SOURCE: PCT Int. Appl. 1. 100 PP.

CODEN: PIXXD2

Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005510	A1	2004-01-15	WO 2003-JP8469	2003-07-03 <->
W: AE, AG, AL, AM, AT, AU, BB, BG, BY, CZ, DE, DR, DM, EC, ES, FI, GB, GD, GE, GH, CO, CR, CU, CZ, DE, DR, DM, EC, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, N2, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: GH, GM, KE, LS, MN, MZ, SD, SL, SZ, T2, UG, AM, A2, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IS, IT, IU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	AU 2003-246254 A1 20040123	JP 2002-197188 A 2002-0705 <->		
PRIORITY APPLN. INFO. :			WO 2003-JP8469	2003-07-03 <->

ED Entered STN: 18 Jan 2004

AB This invention provides a novel protein 39C7 from human and rat, which has sequence homology with Nogo receptor (Ngr) family, encoding cDNA, recombinant expression, and drug screening, diagnostic, and therapeutic uses. A rat cDNA clone 39C7 coding for a Nogo receptor-like protein and a human homolog, were cloned. 39C7 showed elevated expression in the skeletal muscle of a diabetes model Zucker fatty rat having a restricted diet and taking exercises, upon improvement in insulin resistance. In a cell line overexpressing human 39C7,

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glucose uptake was increased independent of insulin concentration. The protein is useful as a diagnostic marker and a remedy for diabetes. Since this polypeptide is expressed most strongly in the cerebral cortex in the brain, it is also useful as marker and a remedy for neurodegenerative diseases such as Alzheimer's disease.

IC ICM C12N015-09

IC S A01K067-027; A61K031-7088; A61K038-17; A61K039-395; A61K048-00; A61P003-10; A61P021-04; A61P025-00; A61P025-16; A61P025-38; C07K014-705; C07K016-28; C12P021-02; C12Q001-68; G01N033-15; G01N033-50; G01N033-53; G01N033-566

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 6, 14  
cDNA sequence Nogo receptor homolog 39C7 human rat;  
diabetes neurodegenerative disease diagnosis therapy

IT Proteins

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(39C7; Nogo receptor homolog protein 39C7 from human and rat and therapeutic uses for diabetes and neurodegenerative diseases)

IT Repeat motifs (protein)  
(LRR (leucine-rich repeat), presence of; Nogo receptor homolog protein 39C7 from human and rat and therapeutic uses for diabetes and neurodegenerative diseases)

IT Receptor homolog protein 39C7 from human and rat and therapeutic uses for diabetes and neurodegenerative diseases)

IT Human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Rattus

cDNA sequences

(Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Nogo; Nogo receptor homolog protein 39C7 from human and rat and therapeutic uses for diabetes and neurodegenerative diseases)

IT Brain  
(cerebral cortex, strong expression in; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Nervous system, disease  
(degeneration; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Disease models

(diabetes; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

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IT Diabetes and neurodegenerative diseases)

IT Diagnosis (genetic; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Diagnosis (immunodiagnosis; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Diagnosis (mol.; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Muscle (of diabetes model Zucker fatty rat, elevated expression in; Nogo receptor homolog protein 39C7 from human and rat (restricted), diabetes model rat with, elevated expression in; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT Diet (bicarbonate transport, glucose, insulin-independent increase in human 39C7 (uptake, glucose, insulin-independent increase in human 39C7 overexpressing cell line, Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases))

IT Biological study (amino acid sequence; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT 64074-87-5 64074-88-6 R1: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (amino acid sequence; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT 64074-85-3 R1: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (nucleotide sequence; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT 904-10-8, Insulin, biological studies R1: BSU (Biological study, unclassified); BIOL (Biological study) (resistance, improvement in, diabetes model rat with, elevated expression in; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

IT 50-99-7, D-Glucose, biological studies R1: BSU (Biological study, unclassified); BIOL (Biological study) (uptake, insulin-independent increase in human 39C7 overexpressing cell line; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L152 ANSWER 18 OF 36 HCAPIUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004-513137 HCAPIUS Full-text  
DOCUMENT NUMBER: 141-47160  
TITLE: Inhibitors of myelin-associated glycoprotein (MAG) activity for regulating

INVENTOR(S):	Filbin, Marie T.; Domeniconi, Marco;	Cao, Zixuan
PATENT ASSIGNEE(S) :	USA	
SOURCE:	U.S. Pat. Appl. Publ., 81 pp.	
CODEN: USXXCO		
DOCUMENT TYPE:		
LANGUAGE:		
FAMILY ACC. NDM. COUNT:	1	
PATENT INFORMATION:		
PATENT NO.	KIND	DATE
--	--	--
US 2004121341	A1	20040715
CA 2510297	A1	20040715
WO 2004058169	A2	20040715
WO 2004058169	A3	20050721
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GB, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, VN, YU, ZA, ZM, 2W, RN: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, VG, ZM, AZ, BY, FG, KZ, MD, PU, TJ, TM, AT, BB, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG AU 2003299756 A1 20040722 EP 1644016 A2 20050412 EP 2003-800036 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SL, FI, RO, CY, TR, BG, CZ, EE, HU, SK	US 2002-327213 WO 2003-2510297 WO 2003-800036	
PRIORITY APPLN. INFO. :		
ED Entered STN: 25 Jun 2004		
AB The present invention relates generally to products, compns. and methods useful for promoting neural repair and regeneration. The products and compns. of this invention include myelin-associated glycoprotein (MAG) derivs. that are inhibitors of endogenous MAG (e.g., mutant MAG proteins) and Nogo Receptor (Ngr) binding inhibitors that are peptides derived from MAG, Nogo and OMG (Ngr) that can bind to Ngr and block Ngr signaling. Peptides that can bind and activate Ngr signaling are also provided. Inhibitory MAG derivs. and Ngr binding inhibitors are useful for blocking the inhibition of neural regeneration mediated by proteins such as MAG, Nogo and/or OMG in the nervous system. These inhibitors are also useful for treating neural degeneration associated with injuries, disorders or diseases.		
IC ICW C120001-68 ICS C07K014-47 ICs 43-00600; 43-06100; C07K014-47		
CC 1-11 (Pharmacology)		
IT Receptors IC C07H021-04; C07K014-47 ICs 43-00600; 43-06100; 43-5320100; 43-5325000; 53-0395000; 53-6235000		
RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo, Nogo receptor-binding inhibitors; inhibtors of myelin-associated glycoprotein (MAG) activity for regulating		
IT Alzheimer's disease		
IT Aneurysm		
IT Anti-Alzheimer's agents		
IT Antiparkinsonian agents		
IT Drug delivery systems		
IT Multiple sclerosis		
IT Nerve regeneration		

**Nervous system agents**  
**Parkinson's disease**  
**Prion diseases**  
**Protein sequences**  
 (inhibitors of myelin-associated glycoprotein (MAG) activity for regulating neural growth and regeneration)

**L152 ANSWER 19 OF 36** HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003-1006693 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140-58448  
 TITLE: Antigen-presenting cells for neuroprotection and nerve regeneration

INVENTOR(S): Eisenbach-Schwartz, Michal; Cohen, Avraham  
 SOURCE: Yeda Research and Development Co. Ltd., Israel  
 PCT INT. Appl.: 72 pp.  
 CODRN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003105750	A2	20031224	WO 2003-T1500	20030612 <->
WO 2003105750	A3	20050728		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CR, CH, CN, CO, CR, CU, C2, DE, DK, DM, DZ, ES, FI, GB, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, MA, MD, MG, MK, MN, MW, MX, MZ, NJ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, K2, MD, RU, TJ, TM, AT, BG, CH, CY, CZ, DE, DK, EE, BS, FI, FR, GB, GR, HU, IE, IT, IU, MC, NL, PT, RO, SE, SI, SK, TR, BP, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, CA 2488855 A1 20031224 CA 2003-1488855 20030612 <->	20030612 <->			
AU 2003231909 A2 20031221 AU 2003-231909 20030612 <->	20030612 <->			
EP 1578199 A2 20050928 EP 2003-160117 20030612 <->	20030612 <->			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HD, SK CN 1705438 A 20051207 CN 2003-819341 20030612 <->	20030612 <->			
JP 2006503808 T 20060202 JP 2004-112658 20030612 <->	20030612 <->			
US 2006057110 A1 20060316 US 2004-517666 20030612 <->	20030612 <->			
US 2002-388296P P 20020614 <->	20030612 <->			
WO 2003-T1500 W 20030612 <->	20030612 <->			

ED Entered STN: 26 Dec 2003  
 PRIORITY APPLN. INFO.: The authors disclose pharmaceutical compns. and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the treatment of an injury, disorder or disease of the CNS or PNS. The treatment comprises antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide or altered peptide ligand derived from an NS-specific antigen; (c) a copolymer selected from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and Poly-Glu50-Tyr50; and (d) a non-self antigen. In one example, local implantation of bone marrow-derived dendritic cells exposed to MBP peptide promoted functional recovery in a spinal cord contusion model.

AB The authors disclose pharmaceutical compns. and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the treatment of an injury, disorder or disease of the CNS or PNS. The treatment comprises antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide or altered peptide ligand derived from an NS-specific antigen; (c) a copolymer selected from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and Poly-Glu50-Tyr50; and (d) a non-self antigen. In one example, local implantation of bone marrow-derived dendritic cells exposed to MBP peptide promoted functional recovery in a spinal cord contusion model.

IC ICM AGIK 15-8 (Immunochemistry)

CC

Section cross-reference(s): 1, 2, 14  
 Receptors  
 IT  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USSE (Uses)  
 (Nogo; with antigen-presenting cells for elicitation of T-cell-dependent neuroprotection and nerve regeneration in nervous system injury)  
 IT Alzheimer's disease  
 Amnesia  
 Anxiety  
 Central nervous system, disease  
 Epilepsy  
 Glaucoma (disease)  
 Oxidative stress, biological  
 Parkinson's disease  
 Peripheral nervous system, disease  
 (antigen-presenting cells for elicitation of antigen- and T-cell-dependent neuroprotection and nerve regeneration in nervous system injury)  
 IT  
 Amyloid  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USSE (Uses)  
 (β : with antigen-presenting cells for elicitation of antigen- and T-cell-dependent neuroprotection and nerve regeneration in nervous system injury)

L152 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 139-345937 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139-345937  
 TITLE: BACE1 regulation by RTN3 and RTN4 and methods for drug screening and treating amyloidoses  
 INVENTOR(S): Yan, Riqiang; Lu, Yifeng  
 PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA  
 SOURCE: PCT Int. Appl.: 44 pp.  
 CODEN: PIXXD1  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	APPLICATION NO.	DATE
WO 2003105750	A2	20031224	WO 2003-T1500	20030612 <->	WO 2003-105750	20030612 <->
W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CR, CH, CN, CO, CR, CU, C2, DE, DK, DM, DZ, ES, FI, GB, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, MA, MD, MG, MK, MN, MW, MX, MZ, NJ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, K2, MD, RU, TJ, TM, AT, BG, CH, CY, CZ, DE, DK, EE, BS, FI, FR, GB, GR, HU, IE, IT, IU, MC, NL, PT, RO, SE, SI, SK, TR, BP, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, CA 2488855 A1 20031224 CA 2003-1488855 20030612 <->	20030612 <->					
AU 2003231909 A2 20031221 AU 2003-231909 20030612 <->	20030612 <->					
EP 1578199 A2 20050928 EP 2003-160117 20030612 <->	20030612 <->					
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HD, SK CN 1705438 A 20051207 CN 2003-819341 20030612 <->	20030612 <->					
JP 2006503808 T 20060202 JP 2004-112658 20030612 <->	20030612 <->					
US 2006057110 A1 20060316 US 2004-517666 20030612 <->	20030612 <->					
US 2002-388296P P 20020614 <->	20030612 <->					
WO 2003-T1500 W 20030612 <->	20030612 <->					

ED Entered STN: 26 Dec 2003  
 PRIORITY APPLN. INFO.: The authors disclose pharmaceutical compns. and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the treatment of an injury, disorder or disease of the CNS or PNS. The treatment comprises antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide or altered peptide ligand derived from an NS-specific antigen; (c) a copolymer selected from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and Poly-Glu50-Tyr50; and (d) a non-self antigen. In one example, local implantation of bone marrow-derived dendritic cells exposed to MBP peptide promoted functional recovery in a spinal cord contusion model.

AB The authors disclose pharmaceutical compns. and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the treatment of an injury, disorder or disease of the CNS or PNS. The treatment comprises antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide or altered peptide ligand derived from an NS-specific antigen; (c) a copolymer selected from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and Poly-Glu50-Tyr50; and (d) a non-self antigen. In one example, local implantation of bone marrow-derived dendritic cells exposed to MBP peptide promoted functional recovery in a spinal cord contusion model.

IC ICM AGIK 15-8 (Immunochemistry)

CC

MX 2004PA09498	A	20050517	MX 2004-PB9488	20040929 <--	10/553,669
PRIORITY APPLN. INFO.:			US 2002-373264P	P <--	(of RTN3/RTN4 genes; Alzheimer's disease treatment)
WO 2003-US8829	W	20030408 <--	IT	with polypeptides modulating BACE1 activity)	
ED Entered STN: 31 Oct 2003			IT	Proteins	
AB The invention relates to compositions, and methods for treating Alzheimer's Disease and other amyloidoses, to polypeptides that modulate BACE1 activity, and methods to identify agents for use in treating Alzheimer's Disease and other amyloidoses. This invention is based, in part, on the novel finding that RTN3 or RTN4 modulates the activity of BACE1. Thus, in one aspect, the invention provides a method of modulating BACE1 activity in a humans and animals by administration of an exogenous RTN3 or exogenous RTN4 polypeptide or administration of one or more agents that affect the expression or activity of endogenous RTN3 or RTN4. Polypeptides that are derived from RTN3 sequence and possess one or more function or biological activities of RTN3, polynucleotide sequences encoding the recombinant polypeptides, and method of making the recombinant polypeptides are also included. Also included are in vitro or in vivo methods to identify agents that modulate (1) the expression or activity of RTN3 or RTN4 or (2) the activity of BACE1, agents modulating the activity of BACE1 where the said agents are exogenous RTN3, exogenous RTN4 polypeptide, recombinant polypeptides of the invention, and agents that affect the expression or activity of endogenous RTN3 or RTN4.		IT	IT: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)		
IC ICH A61K			IT	(reticulin RTN3; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
CC 1-11 (Pharmacology)			IT	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)	
ST Amyloidosis Alzheimer disease treatment RTN3 RTN4			IT	(beta, modulators of production of; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
IT Alzheimer's disease			IT	RL: BSU (Biological study, unclassified); BIOL (Biological study)	
Anti-Alzheimer's agents			IT	(Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
Drug screening			IT	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)	
Human			IT	(nucleotide sequence; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
(Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT	RL: BDU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)	
IT Proteins			IT	(nucleotide sequence; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
RL: ARG (Analytical reagent use); BPN (Biosynthetic Preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)			IT	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)	
(Nogo; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT	(nucleotide sequence; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)	
IT Gene, animal			IT	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)	
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)			IT	(unclaimed nucleotide sequence; bACE1 regulation by RTN3 and RTN4 and methods for drug screening and treating amyloidoses)	
(RTN3, modulators of expression of; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT	RL: ARG (Properties)	
IT Animal cell line			IT	(unclaimed protein sequence; bACE1 regulation by RTN3 and RTN4 and methods for drug screening and treating amyloidoses)	
Animal tissue culture			IT	L152 ANSWER 21 of 36 HCAPLUS COPYRIGHT 2007 ACS on STN	
(RTN3/RTN4-expressing, drug screening with: Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT	ACCESSION NUMBER: 2002:966440 HCAPLUS Full-text	
IT Myobitis			IT	DOCUMENT NUMBER: 138.38058	
(inclusion body, sporadic; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT	TITLE: Human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers	
IT Amyloidosis			IT	INVENTOR(S): Anderson, David W.; Zerhusen, Bryan D.; Li, Li; Zhong, Mei; Casmari, Stacie J.; Gerlach, Valerie L.; Shimkets, Richard A.; Gorman, Linda; Pena, Carol E. A.; Kekuda, Ramesh; Patturajan, Meera; Spytak, Kimberly A.; Leite, Mario W.; Rastelli, Luca; MacDougall, John R.; Taupier, Raymond J., Jr.; Guo, Xiaojia; Miller, Charles E.; Sherry, Suresh G.; Hjalti, Tord; Voss, Edward Z.; Boldog, Ferenc L.; Malyankar, Uriel M.;	
(amyloid angiopathy; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT		
IT Molecular association			IT		
(of BACE1 with RTN3/RTN4 proteins; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)			IT		
IT Molecular Cloning			IT		

10/553,669

Padigaru, Muralidhara; Ji, Weizhen; Smithson, Glenda;  
 Edinger, Shlomit R.; Millet, Isabelle; Ellerman, Karen  
 Curagen Corporation, USA  
 PCT Int. Appl., 461 pp.  
 CODEN: PIXXD2

PATENT ASSIGNEE (S) :  
 SOURCE:  
 DOCUMENT TYPE:  
 LANGUAGE:  
 FAMILY ACC. NUM. COUNT:  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002099062	A2	2002112	WO 2002-US17559	20020604 <--
WO 2002099062	A3	20030220		20020604 <--
W: AE, AG, AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MN, MW, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, US, US, UZ, VN, YU, ZA, ZM, ZW	A1	20040129	US 2002-161493	20020410 <--
RW: GH, GM, KE, LS, MN, MZ, SD, SL, TZ, UG, ZN, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CS, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	A1	20040129	CA 2002-2447935	20020604 <--
CA 2447935	A1	20021212	AU 2002-303360	20020604 <--
AU 2002303960	A1	20021216	EP 2002-732027	20020604 <--
EP 1601470	A2	20040331	JP 2003-502172	20020604 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, CY, AL, TR	A1	20050310	EP 2006-2417	20020604 <--
JP 200506833	T	20061206	EP 2006-2417	20020604 <--
EP 166198	A2	20060531	EP 2006-2417	20020604 <--
EP 166198	A3	20061206	EP 2006-2417	20020604 <--
AU 200520106	A1	20050310	AU 2005-200106	20050312 <--
US 2006063200	A1	20060323	US 2005-51724	20050302 <--
US 2005266431	A1	20051201	US 2005-64246	20050322 <--
AU 2006201467	A1	20060504	AU 2006-201467	20060407 <--
AU 2007202935	A1	20070719	AU 2007-202935	20070526 <--
PRIORITY APPLN. INFO.: .			US 2001-295607P	P 20010604 <--
			US 2001-296404P	P 20010606 <--
			US 2001-296118P	P 20010606 <--
			US 2001-296575P	P 20010607 <--
			US 2001-297414P	P 20010611 <--
			US 2001-297567P	P 20010612 <--
			US 2001-298067P	P 20010612 <--
			US 2001-298285P	P 20010614 <--
			US 2001-298288P	P 20010615 <--
			US 2001-29856P	P 20010615 <--
			US 2001-299133P	P 20010618 <--
			US 2001-299230P	P 20010619 <--
			US 2001-299349P	P 20010621 <--
			US 2001-300177P	P 20010622 <--
			US 2001-301530P	P 20010628 <--
			US 2001-301550P	P 20010628 <--
			US 2001-302951P	P 20010703 <--
			US 2001-318771P	P 20010912 <--
			US 2001-324687P	P 20010925 <--
			US 2001-339566P	P 20011024 <--
			US 2001-337524P	P 20011116 <--
ED				Entered STN: 13 Dec 2002
AB				Disclosed herein are nucleic acid sequences that encode NOVX polypeptides such as NOV1, NOV2, NOV3, etc.. Also disclosed are antibodies, which immunospecifically-bind to the polypeptide, as well as derivs., variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, prognosis, treatment, and prevention of human diseases involving any one of these novel human nucleic acids, polypeptides, or antibodies, or fragments thereof, such as cancer.
IC				ICM C12N
CC				CC 15-2 (Immunohemistry)
ST				human NOVX protein-polynucleotide antibody cancer diagnosis prognosis therapy
IT				Claudins
IT				IT Glycoproteins
RI				RI: BSU (Biological study, unclassified); BIOL (Biological study)
RI				(C4bp (complement C4-binding protein); human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT				IT CD antigens
RI				RI: BSU (Biological study, unclassified); BIOL (Biological study)

0/553,669

10/553,669

**BSU** (Biological study, unclassified Properties); **THU** (therapeutic use) (Biological study); **PREP** (Preparations (NOV14; human NOVX polypeptides, diagnosis, prognosis and therapy and cancers).

T Interline, disease  
(Crohn's; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

T Proteins  
RU: BSU (Biological study, unclassified); BIOL (Biological study)  
(BSU: human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

R	<p><b>Tumor antigens</b></p> <p>RL: BSU (Biological study, unclassified); BIOL (Biological study) (ME6/11; human NOVX polypeptides, poly nucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)</p>
T	<p><b>Gene, animal</b></p> <p>Proteins</p> <p>RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)</p> <p>(NOV10; human NOVX polypeptides, poly nucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)</p>
T	

**Protein**  
 RI: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
 BSU (Biological study, unclassified); DGN (Diagnostic use); PRP  
 (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
 (Biological study); PREP (Preparation); USPS (Uses)  
 (Nov1); human NOVX polypeptides, poly nucleotides and antibodies for  
 diagnosis, prognosis and therapy of NOVX-associated disorders  
 and cancers)

**Protein B**  
 RU: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
 BSU (Biological study, unclassified); DGN (Diagnostic use); PRP  
 (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
 (Biological study); PREP (Preparation); USSS (Uses)  
 (NOV12, human NOVX polypeptides, polymucleotides and antibodies for  
 diagnosis, prognosis and therapy of NOVX-associated disorders  
 and cancers)

**Protein**: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USSE (Use(s) study); (Nov13); human NOVX polypeptides, poly nucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers]

**Proteins**      RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
gene, amino.

10/553,669

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV14; human NOVV polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVV-associated disorders and Cancers).

Gene, animal  
and cancers)

Proteins

RL : ARU (Analytical role, unclassified) ; BPN (Biosynthetic preparation) ;  
 BSU (Biological study, unclassified) ; DGN (Diagnostic use) ; PRP  
 (Properties) ; THU (Therapeutic use) ; ANST (Analytical study) ; BIOL  
 (Biological study) ; PRBP (Preparation) ; USES (Uses)  
 (NOV16 ; human NOVX polypeptides, polyribonucleotides and antibodies for  
 diagnosis, prognosis and therapy of NOVX-associated disorders  
 and cancers)

Gene, animal  
and cancers)

Proteins

RL : ARU (Analytical role, unclassified) ; BPN (Biosynthetic preparation) ;  
 BSU (Biological study, unclassified) ; DGN (Diagnostic use) ; PRP  
 (Properties) ; THU (Therapeutic use) ; ANST (Analytical study) ; BIOL  
 (Biological study) ; PRBP (Preparation) ; USES (Uses)

diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

**Gene, animal**

**Proteins**

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
BSU (Biological study, unclassified); DCN (Diagnostic use); PRP  
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

Gene, animal  
Proteins

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
BSU (Biological study, unclassified); DGN (Diagnostic use); PRP-<sup>a</sup>  
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

diagnosis, prognosis and therapy of NOX-associated disorders  
and cancers)

diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)



	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV32; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV33; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV34; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV35; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV36; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV37; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
	IT	Gene, animal Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV38; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

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(NOV44: human NOVX polypeptides, polyimides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

ne, animal  
ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
DGN (Diagnostic use); DPR (Properties); DTH (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(NOV45; human NOVX polypeptides, polynucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

1. animal  
ABU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
I (Biological study, unclassified); DGN (Diagnostic use); PRP  
Properties; THU (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(NOV46: human NOVX polypeptides, polyribonucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX-associated disorders  
2. animal  
ABU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
I (Biological study, unclassified); DGN (Diagnostic use); PRP  
Properties; THU (Therapeutic use); ANST (Analytical study); BIOL  
Properties; PREP (Preparation); USES (Uses)  
(NOV4: human NOVX polypeptides, polyribonucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

ne, animal  
AU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
I (Biological study, unclassified); DGN (Diagnostic use); PRP  
(Proteomics); THU ("therapeutic use"); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(Innov.; human NOVX polypeptides, poly nucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
 I (Biological study, unclassified); DGN (Diagnostic use); PRP  
 (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (NOIV, human NOIV polypeptides, poly nucleotides and antibodies for  
 diagnosis, prognosis and therapy of NOIV-associated disorders  
 and cancers)

**Antineurotrophins**  
AU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
(Biological study, unclassified); DGN (Diagnostic use); PRP  
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(NOV7; human NOV7 polypeptides, poly nucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX- associated disorders

ARU (Analytical role, unclassified): BPN (Bioanalytic preparation):  
BPN (Bioanalytic preparation):

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BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV8; human NOV8 polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOV8-associated disorders and cancers).

IT Gene, animal  
Proteins RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PRSP (Preparation); USES (Uses) (NOV9; human NOV9 polypeptides, polynucleotides and antibodies for therapeutic and diagnostic purposes)

**IT** Gene, animal  
proteins  
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);  
BSU (Biological study, unclassified); DGN (Diagnostic use); PRP  
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL  
(Biological study); PREP (Preparation); USBS (Uses)  
(NOVA; human NOXV polypeptides, polynucleotides and antibodies for  
diagnosis, prognosis and therapy of NOXV-associated disorders  
and cancers)

Receptors and cancers	IT RL: BSU (Biological study, unclassified): BIOL (Biological study) Nogo; human NOX polypeptides, poly nucleotides and antibodies for diagnosis, prognosis and therapy of NOX-associated disorders and cancers)
Proteins	IT RL: BSU (Biological study, unclassified): BIOL (Biological study)

**IT** Tumor antigens  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(XAGE, human NOVX polypeptides, polynucleotides and antibodies for  
diagnosis, prognosis and therapy of NOVX-associated disorders  
and cancers)

IT	<b>Diagnosis</b> (cancer; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	<b>Drug delivery systems</b> (carriers; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Receptors	IT	IT
RL: BSU (Biological study, unclassified); BIOL (Biological study) (cellular; human NOXV polypeptides, Polynucleotides and antibodies for diagnosis, prognosis and therapy of NOXV-associated disorders and cancers)		
Test kits	IT	IT
(diagnostic; human NOXV polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOXV-associated for diagnosis, prognosis and therapy of NOXV-associated		

**IT** Biomarkers  
disorders and cancers)  
(diseases: human NO<sub>X</sub> polypeptides, polynucleotides and antibodies for  
environmental and therapeutic of NO<sub>X</sub>-associated disorders

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		prognosis and therapy of NOVX-associated disorders and cancers)
IT	Glycoproteins and cancers)	RL: BSU (Biological study, unclassified); BIOL (Biological study) (endosomal precursor; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Antibodies and Immunoglobulins	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (fragments; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Antibodies and Immunoglobulins	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (fusion products; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Transport proteins	RL: BSU (Biological study, unclassified); BIOL (Biological study) (histidine transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Alzheimer's disease	
IT	Antitumor agents	
IT	Asthma	
IT	DNA sequences	
IT	Diabetes mellitus	
IT	Diagnosis	
IT	Dissociation constant	
IT	Drug screening	
IT	Eubacteria	
IT	Genetic vectors	
IT	Human	
IT	Immunotherapy	
IT	Inflammation	
IT	Insecta	
IT	Mammalia	
IT	Metabolic disorders	
IT	Molecular cloning	
IT	Nucleic acid hybridization	
IT	Prognosis	
IT	Protein sequences	
IT	Susceptibility (genetic)	
IT	Yeast	(human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Transgene	RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study) (human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Antibodies and Immunoglobulins	RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

IT	Nervous system, neoplasm (meningoma, antigen; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Mutagenesis (site-directed, substitution; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Neoplasm (metastasis; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Antigens RL: BSU (Biological study, unclassified); BIOL (Biological study) (surface, leukocyte; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Antibodies and Immunoglobulins RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PRP (Preparation); USES (Uses) (monoclonal; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Proteins RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study) (test; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Meninges (neoplasm, meningoma, antigen; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (transmembrane; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (neurofascin precursor; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Injury (trauma; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Nerve, disease (neuropathy; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Thrombospondins RL: BSU (Biological study, unclassified); BIOL (Biological study) (type I motif; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Antibodies and Immunoglobulins RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PRP (Preparation); USES (Uses) (neutralizing; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Integrins RL: BSU (Biological study, unclassified); BIOL (Biological study) (α8; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Transport proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (phospholipid transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Transforming growth factors RL: BSU (Biological study, unclassified); BIOL (Biological study) (β-, binding protein 3; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
IT	Cadherins RL: BSU (Biological study, unclassified); BIOL (Biological study) (proline transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Protein NOV3a 478431-33-3P, Protein NOV3a (human) 478431-37-7P, Protein NOV5a (human) 478431-41-3P, Protein NOV6b (human) 478431-45-7P, Protein NOV8a (human) 478431-49-1P, Protein NOV9b (human) 478431-53-7P, Protein NOV10a (human) 478431-57-1P, Protein NOV12b (human) 478431-61-7P, Protein NOV13b (human) 478431-65-1P, Protein NOV15a (human) 478431-67-3P, Protein NOV15b (human)
IT	Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); BIOL (Biological study) (galic acid-binding; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)	IT	Protein NOV17a (human) 478431-70-8P, Protein NOV17a (human) 478431-72-0P, Protein NOV17b (human) NOV17C (human) 478431-76-4P, Protein NOV18a (human) Protein NOV19a (human) 478431-80-0P, Protein NOV20a (human) 478431-82-2P, Protein NOV20b (human) (human) 478431-84-4P, Protein NOV21a 478431-86-6P, Protein NOV22a (human)

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IT Alzheimer's disease  
Axon  
Nerve regeneration  
Synaptic plasticity  
(Nogo receptor in modulation of axonal regeneration in neurodegenerative disease)

IT Proteins  
Receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Nogo; Nogo receptor in modulation of axonal regeneration in neurodegenerative disease)

IT Nervous system, disease  
(degeneration, Nogo receptor in modulation of axonal regeneration in neurodegenerative disease)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L152 ANSWER 24 OF 36 MEDLINE ON STN DOCUMENT NUMBER: 2003258477 MEDLINE Full-text  
DOCUMENT ID: 12794033  
TITLE: Unaltered plasma levels of beta-amyloid(1-40) and beta-amyloid(1-42) upon stimulation of human platelets.  
AUTHOR: Olsson Annika; Vanmechelen Eugeen; Vanderstichele Hugo;  
Davidson Pia; Blennow Kaj  
CORPORATE SOURCE: Institute of Clinical Neuroscience, Experimental Neuroscience Section, Goteborg University, Sahlgrenska University Hospital/Molndal, Molndal, Sweden..  
Annika.Olsson@neuro.gu.se  
Dementia and geriatric cognitive disorders, (2003)  
Vol. 16, No. 2, pp. 93-7.  
Journal code: 9705200. ISSN: 1420-8008.

PUB. COUNTRY: Switzerland  
DOCUMENT TYPE: Journal Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200310  
ENTRY DATE: Entered STN: 5 Jun 2003  
Last Updated on STN: 16 Oct 2003  
Entered Medline: 15 Oct 2003

AB Accumulation of beta-amyloid (Abeta) in the brain is one of the central lesions in Alzheimer's disease (AD). Alternative cleavage of the amyloid precursor protein (APP), occurring in both normal and AD subjects, results in the generation and secretion of soluble APP, Abeta(40) and Abeta(42). Platelets have been regarded as the primary source of circulating APP and Abeta. Plasma levels of Abeta may therefore be dependent on platelet activation. We analyzed Abeta(40/42) in plasma in the presence of physiological agonists of platelet activation such as adenosine diphosphate, collagen, thrombin, and a synthetic agonist, peptide 6. We found that the levels of Abeta(40/42) in plasma were not related to platelet activation, suggesting that sampling techniques affecting platelet activation do not confound measurement of Abeta(40/42) in plasma. Copyright 2003 S. Karger AG, Basel

SO Dementia and geriatric cognitive disorders, (2003) Vol. 16, No. 2, pp. 93-7.  
Journal code: 9705200. ISSN: 1420-8008.

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AB Amyloid precursor Protein Secretases Alzheimer Disease Amyloid Beta-Protein: BL, blood Aspartic Endopeptidases: BL, blood Blood Platelets: MB, metabolism Endopeptidases Humans Membrane Proteins: BL, blood Peptide Fragments: BL, blood Platelet Activation Presenilin-1 CN 0 (Amyloid beta-Protein); 0 (Membrane Proteins); 0 (PS2N1 protein, human); 0 (Peptide Fragments); 0 (Presenilin-1); 0 (amyloid beta-protein (1-42)); EC 3.4.- (Amyloid Precursor Protein Secretases); EC 3.4.- (Endopeptidases); EC 3.4.23.- (Aspartic Endopeptidases); EC 3.4.23.46 (RACE1 protein, human)

L152 ANSWER 25 OF 36 MEDLINE ON STN DOCUMENT NUMBER: 2002246485 MEDLINE Full-text  
DOCUMENT ID: 12083742  
TITLE: Uptake and pathogenic effects of amyloid beta peptide 1-42 are enhanced by integrin antagonists and blocked by NMDA receptor antagonists  
AUTHOR: Bi X; Galli C M; Zhou J; Lynch G  
CORPORATE SOURCE: Psychiatry and Human Behavior, 101 Theory, Suite 250, University of California at Irvine, 92697, USA..  
xbi@uci.edu  
CONTRACT NUMBER: AG00538 (NINDS)  
NS37799 (NINDS)  
SOURCE: Neuroscience, (2002) Vol. 112, No. 4, pp. 827-40.  
Journal code: 7605074. ISSN: 0306-4522.  
United States  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200209  
ENTRY DATE: Entered STN: 29 Jun 2002  
Last Updated on STN: 4 Sep 2002  
Entered Medline: 3 Sep 2002  
Entered STN: 29 Jun 2002  
Last Updated on STN: 4 Sep 2002  
Entered Medline: 3 Sep 2002  
AB Many synapses contain two types of receptors - integrins and N-methyl-D-aspartate (NMDA) receptors - that have been implicated in peptide internalization. The present studies tested if either class is involved in

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the uptake of the 42-residue form of amyloid beta peptide ( $\text{Abeta1-42}$ ), an event hypothesized to be of importance in the development of Alzheimer's disease. Cultured hippocampal slices were exposed to  $\text{Abeta1-42}$  for 6 days in the presence or absence of soluble Gly-Arg-Gly-Asp-Ser-Pro, a peptide antagonist of Arg-Gly-Asp (RGD)-binding integrins, or the disintegrin echistatin. Abeta uptake, as assessed with immunocytochemistry, occurred in 42% of the slices incubated with Abeta peptide alone but in more than 80% of the slices co-treated with integrin antagonists. Uptake was also found in a broader range of hippocampal subfields in RGD-treated slices. Increased sequestration was accompanied by two characteristics of early stage Alzheimer's disease: elevated concentrations of cathepsin D immunoreactivity and activation of microglia. The selective NMDA receptor antagonist D-(+)-2-amino-5-phosphonovalerate completely blocked internalization of Abeta, up-regulation of cathepsin D, and activation of microglia. Our results identify two classes of receptors that cooperatively regulate the internalization of  $\text{Abeta1-42}$  and support the hypothesis that characteristic pathologies of Alzheimer's disease occur once critical intraneuronal Abeta concentrations are reached.

**TI** Uptake and pathogenic effects of amyloid beta peptide 1-42 are enhanced by integrin antagonists and blocked by NMDA receptor antagonists.

**SO** Neuroscience, (2002) Vol. 112, No. 4, pp. 827-40.

**AB** Journal code: 7605074. ISSN: 0306-4522.  
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**CT** 2-Amino-5-phosphonovalerate: PD, pharmacology

\*Amyloid beta-Protein: AE, adverse effects

\*Amyloid beta-Protein: ME, metabolism

Cathepsin D: ME, metabolism

Culture Techniques

\*Integrins: AI, antagonists & inhibitors

\*Integrins: ME, metabolism

Microglia: ME, metabolism

\*Oligopeptides: PD, pharmacology

\*Peptide Fragments: AE, adverse effects

Rats: Peptide Fragments: ME, metabolism

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**TI** Uptake and pathogenic effects of amyloid beta peptide 1-42 are enhanced by integrin antagonists and blocked by NMDA receptor antagonists.

**SO** Neuroscience, (2002) Vol. 112, No. 4, pp. 827-40.

**AB** Journal code: 7605074. ISSN: 0306-4522.  
 Many synapses contain two types of receptors - integrins and N-methyl-D-aspartate (NMDA) receptors - that have been implicated in peptide internalization. The present studies tested if either class is involved in the uptake of the 42-residue form of amyloid beta peptide ( $\text{Abeta1-42}$ ), an event hypothesized to be of importance in the development of Alzheimer's disease. Cultured hippocampal slices were exposed to  $\text{Abeta1-42}$  for 6 days in the presence or absence of soluble Gly-Arg-Gly-Asp-Ser-Pro, a peptide antagonist of Arg-Gly-Asp (RGD)-binding integrins, or the disintegrin echistatin. Abeta uptake, as assessed with immunocytochemistry, occurred in 42% of the slices incubated with Abeta peptide alone but in more than 80% of the slices co-treated with integrin antagonists. Uptake was also found in a broader range of hippocampal subfields in RGD-treated slices. Increased sequestration was accompanied by two characteristics of early stage Alzheimer's disease: elevated concentrations of cathepsin D immunoreactivity and activation of microglia. The selective NMDA receptor antagonist D-(+)-2-amino-5-phosphonovalerate completely blocked internalization of Abeta, up-regulation of cathepsin D, and activation of microglia. Our results identify two classes of receptors that cooperatively regulate the internalization of  $\text{Abeta1-42}$  and support the hypothesis that characteristic pathologies of Alzheimer's disease occur once critical intraneuronal Abeta concentrations are reached.

**CT** 2-Amino-5-phosphonovalerate: PD, pharmacology

\*Amyloid beta-Protein: AE, adverse effects

\*Amyloid beta-Protein: ME, metabolism

Cathepsin D: ME, metabolism

Culture Techniques

\*Integrins: AI, antagonists & inhibitors

\*Integrins: ME, metabolism

Microglia: ME, metabolism

\*Oligopeptides: PD, pharmacology

\*Peptide Fragments: AE, adverse effects

Rats: Peptide Fragments: ME, metabolism

Rats, Sprague-Dawley  
 \*Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors  
 \*Receptors, N-Methyl-D-Aspartate: ME, metabolism  
 CN 0 (Amyloid beta-Protein); 0 (Integrins); 0 (Oligopeptides); 0 (Peptide Fragments); 0 (Receptors, N-Methyl-D-Aspartate); 0 (Amyloid beta-protein (1-42)); 0 (Glycyl-arginyl-alanyl-aspartyl-seryl-proline); EC 3.4.23.5 (Cathepsin D)

L152 ANSWER 26 OF 36 MEDLINE ON STN  
 ACCESSION NUMBER: 9437904 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMED ID: 8077213  
 TITLE: Thrombin receptor activation induces secretion and nonamyloidogenic processing of amyloid beta-protein precursor.  
 AUTHOR: Davis-Salinas J; Saporito-Irwin S M; Donovan F M;  
 Cunningham D D; Van Nostrand W E;  
 CORPORATE SOURCE: Department of Microbiology and Molecular Genetics, College of Medicine, University of California, Irvine 92717-4025.  
 CONTRACT NUMBER: AG00538 (NIA)  
 HL49566 (NHLBI)

+  
 SOURCE: The Journal of biological chemistry, (1994 Sep 9)  
 Vol. 269, No. 36, pp. 22623-7.  
 Journal code: 288512R. ISSN: 0021-9258.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, NON-U.S. GOV'T)  
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 1994  
 ENTRY DATE: 199410  
 Entered STN: 13 Oct 1994  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 4 Oct 1994  

AB

The amyloid beta-protein (A beta) and protease nexin-2/amyloid beta-protein precursor (PN-2/A beta PP) are major constituents of senile plaques and cerebrovascular deposits in individuals with Alzheimer's disease and related disorders. It has been suggested that the formation of protease thrombin may process A beta PP in a manner leading to the formation of A beta. Here we investigated the effects of thrombin on the secretion and processing of PN-2/A beta PP and the production of A beta in a cellular system. Incubation of glioblastoma cells with thrombin (1-5 nM) resulted in the accumulation of abnormally processed, carboxyl-terminal-truncated forms of secreted PN-2/A beta PP (approximately 85 kDa) in the culture medium. Higher concentrations of thrombin (> 10 nM) also increased the levels of secreted PN-2/A beta PP in cultured untransfected glioblastoma cells and glioblastoma cells that were stably transfected to overproduce the 69S isoform of A beta PP. Increased secretion of PN-2/A beta PP required the proteolytic activity of thrombin, was induced by activation of the thrombin receptor by agonist peptides, and required activation of protein kinase C. Incubation of the untransfected and transfected glioblastoma cells with thrombin led to decreased levels of soluble A beta in the culture medium consistent with previously suggested mechanisms regarding the secretion of PN-2/A beta PP. Although the present studies suggest that thrombin does not directly contribute to A beta formation, its proteolysis of secreted PN-2/A beta PP may disrupt regions near the carboxyl terminus of the secreted proteins that account for their neuroprotective and cell adhesive properties.

TR Thrombin receptor activation induces secretion and nonamyloidogenic

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	PUB COUNTRY:	Netherlands
	DOCUMENT TYPE:	Journal Article; (JOURNAL ARTICLE)
SO		General Review; (REVIEW)
SO	Journal code:	285121R. ISSN: 0021-9358.
AB	The amyloid beta-protein (A beta) and protease nexin-2/amylod beta-protein precursor (PN-2/A beta PP) are major constituents of senile plaques and cerebrovascular deposits in individuals with Alzheimer's disease and related disorders. It has been suggested that the coagulation protease thrombin may process A beta PP in a manner leading to the formation of A beta. Here we investigated the effects of thrombin on the secretion and processing of PN-2/A beta PP and the production of A beta in a cellular system. Incubation of glioblastoma cells with thrombin (1-5 nM) resulted in the accumulation of abnormally processed, carboxyl-terminal-truncated forms of secreted PN-2/A beta PP (approximately 85 kDa) in the culture medium. Higher concentrations of thrombin (> 10 nM) also increased the levels of secreted PN-2/A beta PP in cultured untransfected glioblastoma cells and glioblastoma cells that were stably transfected to overproduce the 695 isoform of A beta PP. Increased secretion of PN-2/A beta PP required the proteolytic activity of thrombin, was induced by activation of the thrombin receptor by agonist peptides, and required activation of protein kinase C. Incubation of the untransfected and transfected glioblastoma cells with thrombin led to decreased levels of soluble A beta in the culture medium consistent with previously suggested mechanisms regarding the secretion of PN-2/A beta PP. Although the present studies suggest that thrombin does not directly contribute to A beta formation, its proteolysis of secreted PN-2/A beta PP may disrupt regions near the carboxy terminus of the secreted proteins that account for their neuroprotective and cell adhesive properties.	
CT	Amyloid beta-Protein Precursor: BI, biosynthesis •Amyloid beta-Protein Precursor: ME, metabolism Cell Line Dose-Response Relationship, Drug	Glioblastoma Humans Immunoblotting Kinetics Protein Kinase C: ME, metabolism •Protein Processing, Post-Translational Receptors, Thrombin: DE, drug effects •Receptors, Thrombin: PH, physiology •Thrombin: PD, pharmacology Transfection
CN	0 (Amyloid beta-Protein Precursor); 0 (Receptors, Thrombin); EC 2.7.1.37 (Protein Kinase C); EC 3.4.21.5	Tumor Cells, Cultured Kinetics Protein Kinase C: ME, metabolism •Protein Processing, Post-Translational Receptors, Thrombin: DE, drug effects •Receptors, Thrombin: PH, physiology •Thrombin: PD, pharmacology
L152 ANSWER 27 OF 36 MEDLINE ON STN	ACCESSION NUMBER: 2005395151 MEDLINE Full-text DOCUMENT NUMBER: Pubmed ID: 16054018	DOCUMENT SOURCE: Laboratory for Proteolytic Neuroscience, RIKEN Brain Science Institute, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan.. mihiguchi@brain.riken.jp TITLE: Understanding molecular mechanisms of proteolysis in Alzheimer's disease: Progress toward therapeutic interventions.
CN	AUTHOR: Higuchi Makoto; Iwata Nobuhisa; Saido Takao; C CORPORATE SOURCE: Laboratory for Proteolytic Neuroscience, RIKEN Brain Science Institute, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan.. mihiguchi@brain.riken.jp SOURCE: Biochimica et biophysica acta. (2005 Aug 1) Vol. 1751, No. 1, pp. 60-7. Electronic Publication: 2005-03-17. Ref. 61 Journal code: 0217513. ISSN: 0006-3002.	ENTRY DATE: Entered STN: 2 Aug 2005 Last Updated on STN: 28 Sep 2005 Entered Medline: 27 Sep 2005
AB	AB Amyloid beta peptide (Abeta) is not only a major constituent of extracellular fibrillary pathologies in Alzheimer's disease (AD) brains, but is also physiologically produced and metabolized in neurons. This fact led us to the notion that an age-related decrease in Abeta catabolism may contribute to the molecular pathogenesis of AD, providing a rationale for seeking proteolytic enzymes that degrade Abeta in the brain. Our recent studies have demonstrated that neprilysin is the most potent Abeta-degrading enzyme <i>in vivo</i> . Deficiency of endogenous neprilysin elevates the level of Abeta in brains of neprilysin-knockout mice in a gene dose-dependent manner, and an age-associated decline of neprilysin occurs in several regions of mouse brain. Neuropathological alterations in these same regions have been implicated in cognitive impairments of AD patients at an early stage of the disease. Furthermore, the level of neprilysin mRNA has been found to be significantly and selectively reduced in the hippocampus and temporal cortex of AD patients. A clarification of the role played by decreased neprilysin activity in the pathogenesis of AD has opened up the possibility of neprilysin up-regulation as a novel preventive and therapeutic approach to AD. Since the expression level and activity of neprilysin are likely to be regulated by neuropeptides and their receptors, non-peptidic agonists for these receptors might be effective agents to maintain a sufficient level of Abeta catabolism in brains of the elderly. In addition to Abeta deposits, intraneuronal fibrillary lesions, such as neurofibrillary tangles, are also a pathological hallmark of AD, and the extent of the resultant cytoskeletal disruptions may be dependent upon the activity levels of proteolytic enzymes. Among proteases for which major cytoskeletal components are good substrates, calpains were shown to participate in excitotoxic stress-induced neuritic degeneration in our recent analysis using genetically engineered mice. Moreover, we have found that this pathology can be reduced by controlling the activity of an endogenous calpain inhibitor known as calpastatin, providing a possible approach for the treatment of diverse neurodegenerative disorders, including AD.	TI TI Understanding molecular mechanisms of proteolysis in Alzheimer's disease: progress toward therapeutic interventions.
DT	DT Journal: Article; (JOURNAL ARTICLE) General Review; (REVIEW)	AB AB Amyloid beta peptide (Abeta) is not only a major constituent of extracellular fibrillary pathologies in Alzheimer's disease (AD) brains, but is also physiologically produced and metabolized in neurons. This fact led us to the notion that an age-related decrease in Abeta catabolism may contribute to the molecular pathogenesis of AD, providing a rationale for seeking proteolytic enzymes that degrade Abeta in the brain. Our recent studies have demonstrated that neprilysin is the most potent Abeta-degrading enzyme <i>in vivo</i> . Deficiency of endogenous neprilysin elevates the level of Abeta in brains of neprilysin-knockout mice in a gene dose-dependent manner, and an age-associated decline of neprilysin occurs in several regions of mouse brain. Neuropathological alterations in these same regions have been implicated in cognitive impairments of AD patients at an early stage of the disease. Furthermore, the level of neprilysin mRNA has been found to be significantly and selectively reduced in the hippocampus and temporal cortex of AD patients. A clarification of the role played by decreased neprilysin activity in the pathogenesis of AD has opened up the possibility of neprilysin up-regulation as a novel preventive and therapeutic approach to AD. Since the expression

level and activity of neprilysin are likely to be regulated by neuropeptides and their receptors, non-peptide agonists for these receptors might be effective agents to maintain a sufficient level of Abeta catabolism in brains of the elderly. In addition to Abeta deposits, intraneuronal fibrillary lesions, such as neurofibrillary tangles, are also a pathological hallmark of AD, and the extent of the resultant cytoskeletal disruptions may be dependent upon the activity levels of proteolytic enzymes. Among proteases for which major cytoskeletal components are good substrates, calpains were shown to participate in excitotoxic stress-induced neuritic degeneration in our recent analysis using genetically engineered mice. Moreover, we have found that this pathology can be reduced by controlling the activity of an endogenous calpain inhibitor known as calpastatin, providing a possible approach for the treatment of diverse neurodegenerative disorders, including AD.

**CT Alzheimer Disease:** DT, drug therapy  
**Alzheimer Disease:** PA, Pathology  
**\*Alzheimer Disease:** PP, physiopathology  
**\*Amyloid Precursor Protein Secretases**  
**\*Amyloid beta-Protein: NE, metabolism**  
**Amyloid beta-Protein Precursor: NE, metabolism**  
**Aspartic Endopeptidases: ME, metabolism**  
**Brain: EN, enzymology**  
**Calcium-Binding Proteins: ME, metabolism**  
**Calpain: AI, antagonists & inhibitors**  
**Calpain: ME, metabolism**  
**Cysteine Proteinase Inhibitors: TU, therapeutic use**  
**Endopeptidases**  
**Humans**  
**Neprilysin: BI, biosynthesis**  
**\*Neprilysin: ME, metabolism**  
**Nerutines: PH, physiology**  
**Up-Regulation**

**tau Proteins: ME, metabolism**

**CN 0 (Amyloid beta-protein); 0 (Calcium-Binding Proteins); 0 (Amyloid beta-Protein Precursor); 0 (Tau Proteins); EC 3.4.- (Amyloid Precursor Protein Secretases); EC 3.4.- (Endopeptidases); EC 3.4.22.- (Calpain); EC 3.4.23.- (Aspartic Endopeptidases); EC 3.4.23.46 (BACE1 protein, human); EC 3.4.23.46 (BACE1 protein, mouse); EC 3.4.24.11 (Neprilysin)**

**L132 ANSWER 28 OF 36 MEDLINE** Full-text  
**ACCESSION NUMBER:** 2004600136  
**DOCUMENT NUMBER:** Pubmed ID: 15573708  
**TITLE:** [Effects of central administration of beta-

\*amyloid peptide (25-35): pathomorphological changes in the hippocampus and impairments of spatial memory].

**Issledovaniye effekta tsentral'nogo vvedenija beta-amiloидного пептида (25-35):** patomorfologicheskie izmenenia v gippokampe i narushenie prostranstvennoi pamyati.

**Stepanichev M Ju; Zdonova I M; Zarubenko I I; Lazareva N A; Gulyieva N V**  
**Zhurnal vyshei nervnoi deiatelnosti imeni I P Pavlova,**  
**(2004 Sep-Oct) Vol. 54, No. 5, pp. 705-11.**

**SOURCE:** Russkaia Rossiia: Russian Federation  
**PUB. COUNTRY:** (ENGLISH ABSTRACT)  
**DOCUMENT TYPE:** Journal; Article; (JOURNAL ARTICLE)

**LANGUAGE:** Russian  
**Priority Journals**  
**FILE SEGMENT:** 200503  
**ENTRY MONTH:** Dec 2004  
**Last Updated on STM:** Mar 2005  
**Entered STM:** Mar 2005  
**Entered Medline:** Mar 2005

**AB** A possible relationship between the amnesia induced by central administration of beta-amyloid (25-35) (Abeta (25-35)) and neurodegeneration in the hippocampus was studied. Male Wistar rats received a single intracerebroventricular injection of Abeta (25-35) at a dose of 15 nmol. One month after the administration, animals were trained in an eight-arm radial maze. After the training, a histopathological investigation of the hippocampus was carried out using brain slices stained with hematoxylin/eosin. Abeta (25-35) induced impairments in reference and working memory in the eight-arm radial maze. A moderate decrease in neuronal cell number was demonstrated in the CA1, but not in the CA3 subfield of the hippocampus. The number of both reference and working errors negatively correlated with the number of neurons in hippocampal CA1. The results are the first evidence for a specific relationship between neurodegeneration in the CA1 subfield of rat hippocampus and impairments of learning and memory induced by Abeta (25-35).

**TI** [Effects of central administration of beta-amyloid peptide (25-35): pathomorphological changes in the hippocampus and impairments of spatial memory]  
**ISSN:** 0044-4677.  
**Journal code:** 9421551, ISSN: 0044-4677.

**SO** Zhurnal vyshei nervnoi deiatelnosti imeni I P Pavlova, (2004 Sep-Oct) Vol. 54, No. 5, pp. 705-11.

**AB** A possible relationship between the amnesia induced by central administration of beta-amyloid (25-35) (Abeta (25-35)) and neurodegeneration in the hippocampus was studied. Male Wistar rats received a single intracerebroventricular injection of Abeta (25-35) at a dose of 15 nmol. One month after the administration, animals were trained in an eight-arm radial maze. After the training, a histopathological investigation of the hippocampus was carried out using brain slices stained with hematoxylin/eosin. Abeta (25-35) induced impairments in reference and working memory in the eight-arm radial maze. A moderate decrease in neuronal cell number was demonstrated in the CA1, but not in the CA3 subfield of the hippocampus. The number of both reference and working errors negatively correlated with the number of neurons in hippocampal CA1. The results are the first evidence for a specific relationship between neurodegeneration in the CA1 subfield of rat hippocampus and impairments of learning and memory induced by Abeta (25-35).

**CT** Check Tags: Male  
**Check Tags: Amyloid beta-Protein: AD, administration & dosage**  
**Check Tags: Amyloid beta-Protein: PD, pharmacology**  
**Animals**  
**Hippocampus: DE, drug effects**  
**Hippocampus: PA, pathology**  
**Hippocampus: PP, physiopathology**  
**Injections, Intraventricular**  
**Maze Learning: DE, drug effects**  
**Memory: DE, drug effects**  
**Memory: PH, physiology**  
**\*Memory Disorders: ET, etiology**  
**Memory Disorders: PA, pathology**  
**Memory Disorders: PP, physiopathology**  
**Neurons: PA, pathology**  
**Neurons: PH, physiology**

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Peptide Fragments: AD, administration & dosage  
 \* Peptide Fragments: PD, pharmacology  
 Rats, Wistar  
 Space Perception: DE, drug effects  
 \* Space Perception: PH, physiology  
 CN 0 (Amyloid beta-protein); 0 (Peptide Fragments); 0 (Amyloid beta-protein (25-35))

L152 ANSWER 29 OF 36 MEDLINE ON STN

ACCESSION NUMBER: 2004083968 MEDLINE Full-text

DOCUMENT NUMBER: Published ID: 14973420

TITLE: Non-oncologic applications of radiolabeled Peptides in

nuclear medicine.

AUTHOR: Knight L C  
CORPORATE SOURCE: Nuclear Medicine Division, Department of Diagnostic Imaging, Temple University School of Medicine, University Hospital, 3401 N. Broad Street, Philadelphia, PA 19140.CONTRACT NUMBER: USA: lknight@temple.edu  
R01 CA 96792 (NCI)

SOURCE: The quarterly journal of nuclear medicine : official

publication of the Italian Association of Nuclear Medicine (AIMN) (and) the International Association of

Radiopharmacology (IARI), (2003 Dec) Vol. 47, No. 4, pp. 279-91. Ref: 58

Journal code: 9512274. ISSN: 1125-0135.

PUB. COUNTRY: Italy

DOCUMENT TYPE: Journal Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

General Review; (REVIEW)

Language: English

FILE SENSIT: Priority Journals

ENTRY MONTH: 200405

ENTRY DATE: Entered STN: 20 Feb 2004

Last Updated on STN: 20 May 2004

Entered Medline: 19 May 2004

AB Radiolabeled peptides have been investigated for diagnostic imaging in a variety of non-oncologic diseases. For imaging thromboembolic disease, peptides which bind to various components of thrombi have been tested. For targeting the fibrin component of thrombi, peptide analogues of fibrin or fragments of fibronectin which have a distinct binding domain for fibrin have been studied. For targeting activated platelets within thrombi, linear and cyclic peptide antagonists of the glycoprotein IIb/IIIa receptor on platelets have been studied, as well as naturally occurring antagonists of this receptor which are found in venoms. Analogues of laminin and thrombospondin which bind to other receptors on platelets have also been tested. There is an approach which uses a peptide to target thrombin which is sequestered within a fibrin clot. Another area of investigation has been to develop an improved radiopharmaceutical for imaging sites of infection and/or inflammation. Peptides which would bind to leukocytes in vivo, such as antagonists to the tuftsin receptor, chemoattractant peptides, interleukin-8, or a Platelet factor 4 analogue, have been radiolabeled for this purpose. These agents would enable imaging of both infection and inflammation. Development of a radiopharmaceutical for specifically imaging infection has focused on antimicrobial peptides such as human neutrophil defensin, ubiquicidin, human lactoferrin and alafosfalin, which are expected to bind selectively to microorganisms and not to leukocytes. Radiolabeled peptides are also being explored as agents for assessing unstable atherosclerotic plaque (endothelin), amyloid deposits (amyloid beta peptides), and the consequences of diabetes mellitus (human C-peptide).

CT \*Alzheimer Disease: RI, radionuclide imaging  
 \*Antimicrobial Cationic Peptides: DU, diagnostic use  
 \*Arteriosclerosis: RI, radionuclide imaging  
 Humans  
 \*Infection: RI, radionuclide imaging  
 \*Inflammation: RI, radionuclide imaging  
 \*Neoplasms: RI, radionuclide imaging  
 \*Nuclear Medicine: MT, methods  
 \*Peptides: DU, diagnostic use  
 \*Radioimmunoassay: RI, radionuclide imaging  
 \*Thrombosis: RI, radionuclide imaging

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- \* amyloid deposits (amyloid beta peptides), and the consequences of diabetes mellitus (human C-peptide).

TI Non-oncologic applications of radiolabeled peptides in nuclear medicine.

SO The quarterly journal of nuclear medicine : official publication of the Italian Association of Nuclear Medicine (AIMN) (and) the International Association of Radiopharmacology (IARI), (2003 Dec) Vol. 47, No. 4, pp. 279-91. Ref: 58  
 Journal code: 9512274. ISSN: 1125-0135.  
 Journal Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
 General Review; (REVIEW)

AB Radiolabeled peptides have been investigated for diagnostic imaging in a variety of non-oncologic diseases. For imaging thromboembolic disease, peptides which bind to various components of thrombi have been tested. For targeting the fibrin component of thrombi, peptide analogues of fibrin or fragments of fibronectin which have a distinct binding domain for fibrin have been studied. For targeting activated platelets within thrombi, linear and cyclic peptide antagonists of the glycoprotein IIb/IIIa receptor on platelets have been studied, as well as naturally occurring antagonists of this receptor which are found in venoms. Analogues of laminin and thrombospondin which bind to other receptors on platelets have also been tested. There is an approach which uses a peptide to target thrombin which is sequestered within a fibrin clot. Another area of investigation has been to develop an improved radiopharmaceutical for imaging sites of infection and/or inflammation. Peptides which would bind to leukocytes in vivo, such as antagonists to the tuftsin receptor, chemoattractant peptides, interleukin-8, or a Platelet factor 4 analogue, have been radiolabeled for this purpose. These agents would enable imaging of both infection and inflammation. Development of a radiopharmaceutical for specifically imaging infection has focused on antimicrobial peptides such as human neutrophil defensin, ubiquicidin, human lactoferrin and alafosfalin, which are expected to bind selectively to microorganisms and not to leukocytes. Radiolabeled peptides are also being explored as agents for assessing unstable atherosclerotic plaque (endothelin), amyloid deposits (amyloid beta peptides), and the consequences of diabetes mellitus (human C-peptide).

CT \*Alzheimer Disease: RI, radionuclide imaging  
 \*Antimicrobial Cationic Peptides: DU, diagnostic use  
 \*Arteriosclerosis: RI, radionuclide imaging  
 Humans  
 \*Infection: RI, radionuclide imaging  
 \*Inflammation: RI, radionuclide imaging  
 \*Neoplasms: RI, radionuclide imaging  
 \*Nuclear Medicine: MT, methods  
 \*Peptides: DU, diagnostic use  
 \*Radioimmunoassay: RI, radionuclide imaging  
 \*Thrombosis: RI, radionuclide imaging

L152 ANSWER 30 OF 36 BIOSIS COPYRIGHT (C) 2007 The Thomson Corporation on STN  
 DOCUMENT NUMBER: PREV20020136047  
 TITLE: Receptors for chemotactic formyl peptides as pharmacological targets.  
 AUTHOR(S): Le, Yingying [Reprint author]; Yang, Yiming; Cui, Youhong;  
 Yazawa, Hiroshi; Gong, Wanghua; Olu, Cunping; Wang, Ji Ming  
 CORPORATE SOURCE: Laboratory of Molecular Immunoregulation, Center for Cancer Research, National Cancer Institute at Frederick, Frederick, MD, 21702, USA

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ley@mail.ncifcrf.gov  
 International Immunopharmacology, (January, 2002)  
 Vol. 2, No. 1, pp. 1-13. print.  
 ISSN: 1567-5766.

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SOURCE : Coordination and Homeostasis); Pharmacology  
 International Immunopharmacology, (January, 2002)  
 Vol. 2, No. 1, pp. 1-13. print.  
 ISSN: 1567-5766.

DOCUMENT TYPE : Article

General Review: (Literature Review)

LANGUAGE : English

ENTRY DATE : Entered STN: 6 Feb 2002 Last Updated on STN: 26 Feb 2002

AB Leukocytes accumulate at sites of inflammation and immunological reaction in response to locally existing chemoatactic mediators. N-formyl peptides, such as fMet-Leu-Phe (fMLF), are some of the first identified and most potent chemoattractants for phagocytic leukocytes. In addition to the bacterial peptide fMLF and the putative endogenously produced formylated peptides, a number of novel peptide agonists have recently been identified that selectively activate the high-affinity fMLF receptor FPR and/or its low-affinity variant FPR1, both of which belong to the seven-transmembrane (STM) G protein-coupled receptor (GPCR) superfamily. These agonists include peptide domains derived from the envelope proteins of human immunodeficiency virus type 1 (HIV-1) and at least three amyloidogenic polypeptides, the human acute phase protein serum amyloid A, the 42 amino acid form of beta amyloid peptide and a 21 amino acid fragment of human prion. Furthermore, a cleavage fragment of neutrophil granule-derived bactericidal cathelicidin LL-37, is also a chemoatactic agonist for FPR1. Activation of formyl peptide receptors results in increased cell migration, phagocytosis, release of proinflammatory mediators, and the signalling cascade culminates in heterologous receptors including chemokine receptors CCR5 and CXCR4, two coreceptors for HIV-1. Thus, by interacting with a variety of exogenous and host-derived agonists, formyl peptide receptors may play important roles in proinflammatory and immunological diseases and constitute a novel group of pharmacological targets.

TI Receptors for chemotactic formyl peptides as pharmacological targets.

SO International Immunopharmacology, (January, 2002) Vol. 2, No. 1, pp. 1-13. print.

ISSN: 1567-5766.

AB Leukocytes accumulate at sites of inflammation and immunological reaction in response to locally existing chemoatactic mediators. N-formyl peptides, such as fMet-Leu-Phe (fMLF), are some of the first identified and most potent chemoattractants for phagocytic leukocytes. In addition to the bacterial peptide fMLF and the putative endogenously produced formylated peptides, a number of novel peptide agonists have recently been identified that selectively activate the high-affinity fMLF receptor FPR and/or its low-affinity variant FPR1, both of which belong to the seven-transmembrane (STM) G protein-coupled receptor (GPCR) superfamily. These agonists include peptide domains derived from the envelope proteins of human immunodeficiency virus type 1 (HIV-1) and at least three amyloidogenic polypeptides, the human acute phase protein serum amyloid A, the 42 amino acid form of beta amyloid peptide and a 21 amino acid fragment of human prion. Furthermore, a cleavage fragment of neutrophil granule-derived bactericidal cathelicidin, LL-37, is also a chemoatactic agonist for FPR1. Activation of formyl peptide receptors results in increased cell migration, phagocytosis, release of proinflammatory mediators, and the signalling cascade culminates in heterologous receptors CCR5 and CXCR4, two coreceptors for HIV-1. Thus, by interacting with a variety of exogenous and host-derived agonists, formyl peptide receptors may play important roles in proinflammatory and immunological diseases and constitute a novel group of pharmacological targets.

Major Concepts and Molecular Biophysics; Immune System (Chemical Biochemistry and Molecular Biology)

COORDINATION AND HOMEOSTASIS; PHARMACOLOGY

Parts, Structures, & Systems of Organisms

leukocytes; blood and lymphatics, immune system

Diseases

Alzheimer's disease: behavioral and mental disorders, nervous system disease

Alzheimer Disease (MeSH)

DISSESSES

Prion Diseases: immune system disease

Prion Diseases: prion disease

Prion Diseases (MeSH)

DISEASES

Prion diseases: immune system disease

Prion diseases: prion disease

Prion Diseases (MeSH)

Chemicals & Biochemicals

G-protein-coupled receptor; chemotactic formyl peptide receptors; pharmacological targets; chemotactic formyl peptides; fMet-Leu-Phe; non-steroidal antiinflammatory drugs

L152 ANSWER 31 OF 36 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN 2004:205264 BIOSIS Full-text

ACCESSION NUMBER: PREV20040205791

DOCUMENT NUMBER:

TITLE: Possible role of Nogo - A in Alzheimer's disease: association with Abeta plaques.

AUTHOR(S): Prinjha, R. K. [Reprint Author]; Hussain, I. [Reprint Author]; Kumar, U. [Reprint Author]; Richardson, J. C. [Reprint Author]; Harper, A. J. [Reprint Author]; Vinsson, M. [Reprint Author]; Burbidge, S. A. [Reprint Author]; Parsons, A. A. [Reprint Author]; Howlett, D. [Reprint Author]

CORPORATE SOURCE: Alzheimer's Dis. Res., Neurol.-GI CEDD, GlaxoSmithKline, Harlow, UK

SOURCE: Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 880.3. [http://sfn.scholarone.com.e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience, New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience Conference; Abstract; \(Meeting Abstract\)](http://sfn.scholarone.com.e-file.Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience, New Orleans, LA, USA. November 08-12, 2003.)

DOCUMENT TYPE: Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Apr 2004

LAST UPDATED ON STN: 14 Apr 2004

AB The function of axonal outgrowth inhibitors such as Nogo-A in blocking regeneration after CNS trauma is well known. We have previously described alterations in expression and function of Nogo-A in ALS (DuPuis et al 2002) and ischaemic stroke (Roberts et al 2002) but its possible role in the mechanisms of Alzheimer's disease remains poorly understood. Transgenic mice overexpressing the human APPswedish mutant protein have been shown, on ageing, to deposit plaques composed of Abeta peptide. Immunohistochemical analysis in this model, has identified abundant amyloid plaques in the cortex and hippocampus. The distribution of a wide range of cell-type markers including GFAP and neurofilament has been employed in sections from these animals. Of all these markers only Nogo-A and BACE (the enzyme responsible for amyloid peptide production from APP) were found to display immunoreactivity in a structure forming halo around the amyloid plaque. Temporal studies from 12 months onwards suggest that the Abeta plaques begin as small focal deposits that grow outwards. The pattern of Nogo-A and BACE staining at the periphery of plaques suggest that they may have a role in liberating soluble Abeta that

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adds to the growing plaque. In SHSY5Y cells expressing mutant (swedish) APP, both transfected Nogo-A and B show prominent co-localisation with transfected BACE within the ER, a major site of Abeta production. A range of *in vitro* and *in vivo* models have been used to investigate this novel and intriguing CNS regeneration in more detail. In addition to its central role in blocking CNS regeneration our findings suggest a potentially important role for Nogo in the development of Alzheimer's disease.

**TI** Possible role of Nogo - A in Alzheimer's disease:

**SO** Society for Neuroscience Abstract Viewer and Itinerary Planner, ( http://sfn.scholarone.com, e-file.

Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience. The function of axonal outgrowth inhibitors such as Nogo-A in blocking regeneration after CNS trauma is well known. We have previously described alterations in expression and function of Nogo-A in ALS (DuPuis et al 2002) and ischaemic stroke (Roberts et al 2002) but its possible role in the mechanisms of Alzheimer's disease remains poorly understood. Transgenic mice overexpressing the human APPswedisch mutant protein have been shown, on ageing, to deposit plaques composed of Abeta peptide. Immunohistochemical analysis in this model has identified abundant amyloid plaques in the cortex and hippocampus. The distribution of a wide range of cell-type markers including GFAP and neurofilament have been employed in sections from these animals. Of all these markers only Nogo-A and BACE (the enzyme responsible for amyloid peptide production from AP) were found to display immunoreactivity in a structure forming a halo around the amyloid plaque. Temporal studies from 12 months onwards suggest that the Abeta plaques begin as small focal deposits that grow outwards. The pattern of Nogo-A and BACE staining at the periphery of plaques suggest that they may have a role in liberating soluble Abeta that adds to the growing plaque. In SHSY5Y cells expressing mutant (swedish) APP, both transfected Nogo-A and B show prominent co-localisation with transfected BACE within the ER, a major site of Abeta production. A range of *in vitro* and *in vivo* models have been used to investigate this novel and intriguing CNS interaction in more detail. In addition to its central role in blocking CNS regeneration our findings suggest a potentially important role for Nogo in the development of Alzheimer's disease.

**IT** Major Concepts

Cardiovascular Medicine (Human Medicine, Medical Sciences); Neurology (Human Medicine, Medical Sciences); Psychiatry (Human Medicine)

Medical Sciences)

Parts, Structures, & Systems of Organisms

CNS: nervous system; amyloid plaques: nervous system; neurofilaments: nervous system;

plaques: nervous system

Diseases

Alzheimer's disease: behavioral and mental disorders, nervous

system disease

Alzheimer Disease (MeSH)

Diseases

central nervous system trauma: injury, nervous system disease

stroke: nervous system disease, vascular disease

Cerebrovascular Disorders (MeSH)

Chemicals & Biochemicals

Abeta Peptide, BACE; GFAP; Nogo; Nogo-A; amyloid, amyloid peptide.

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	STN	ACCESSION NUMBER: 2001:575419 BIOSIS Full-text
		DOCUMENT NUMBER: PREV200100575419
		TITLE: Enhanced antidepressant effect of signal ( $\sigma$ igma1) agonists in beta-amyloid peptide-treated rodents.
AUTHOR (S):	Urani, A. (Reprint author); Romieu, P.; Roman, F. J.; Nagai, T.; Nabeshima, T.; Murice, T.	(Reprint author); Noda, Y.; Kamei, H.; Tran, M. H.; Nagai, T.; Nabeshima, T.; Murice, T.
CORPORATE SOURCE: SOURCE: Biochimie/Enzymologie, Pfizer G.R.D., Fresnes, France Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 853. print.	Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 853. print.	Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
ISSN: 0190-5295.	ISSN: 0190-5295.	Conference: (Meeting) Conference; Abstract; (Meeting Abstract)
DOCUMENT TYPE: LANGUAGE: English	LANGUAGE: English	Entered STN: 12 Dec 2001
ENTRY DATE: Last Updated on STN: 25 Feb 2002		
AB	The signal receptor is a 223 amino acid protein involved in numerous behavioral effects. In particular, signal receptor agonists present potent anti-depressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective sigma1 agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/kg vs. 60 mg/kg in control groups. Such facilitation was not observed with desipramine. Furthermore, beta25-35 animals exhibited decreased progestrone levels in the hippocampus (-47%). Second, in rats infused during 14 days with the beta1-40 amyloid peptide and submitted to the conditioned fear stress. In this test, (+)-SKF-10-047 reduced the stress-induced motor suppression at 3 mg/kg in beta1-40 peptide infused rats, vs. 6 mg/kg in beta40-1 treated rats. Igmesine presented an effect at 10 mg/kg in beta1-40 infused rats vs. 30 mg/kg in control rats. Neurosteroid measurements and immunohistochemical studies will also be presented. The signal agonist efficacy is known to depend on neuro(active)steroids levels synthesized mainly by glial cells. These cells may be affected by beta-amyloid toxicity. We suggest that signal agonists, due to their enhanced efficacy, may improve Alzheimer's disease-related cognitive deficits.	The signal receptor is a 223 amino acid protein involved in numerous behavioral effects. In particular, signal receptor agonists present potent anti-depressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective sigma1 agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/kg vs. 60 mg/kg in control groups. Such facilitation was not observed with desipramine. Furthermore, beta25-35 animals exhibited decreased progestrone levels in the hippocampus (-47%).
TI	Enhanced antidepressant effect of signal ( $\sigma$ igma1) agonists in rodents.	Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
SO	SO: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 853. print.	ISSN: 0190-5295.
AB	The signal receptor is a 223 amino acid protein involved in numerous behavioral effects. In particular, signal receptor agonists present potent anti-depressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective sigma1 agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/kg vs. 60 mg/kg in control groups. Such facilitation was not observed with desipramine. Furthermore, beta25-35 animals exhibited decreased progestrone levels in the hippocampus (-47%).	The signal receptor is a 223 amino acid protein involved in numerous behavioral effects. In particular, signal receptor agonists present potent anti-depressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective sigma1 agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/kg vs. 60 mg/kg in control groups. Such facilitation was not observed with desipramine. Furthermore, beta25-35 animals exhibited decreased progestrone levels in the hippocampus (-47%).

10/553,669

Second, in rats infused during 14 days with the beta1-40 amyloid peptide and submitted to the conditioned fear stress. In this test, (+)-SKF-10-047 reduced the stress-induced motor suppression at 3 mg/kg in betal-40 peptide infused rats, v. 5 mg/kg in beca01 treated rats. Igmesine presented an effect at 10 mg/kg in beal-40 infused rats v. 30 mg/kg in control rats. Neurosteroid measurements and immunohistochemical studies will also be presented. The signal agonist efficacy is known to depend on neuro(active) steroids levels, synthesized mainly by glial cells. These cells may be affected by b-amyloid toxicity. We suggest that signal agonists, due to their enhanced efficacy, may improve Alzheimer's disease-related cognitive deficits.

Major Concepts

IT Behavior; Nervous System (Neural Coordination); Pharmacology

IT Parts, Structures, &amp; Systems of Organisms

IT glial cell; nervous system; hippocampus: nervous system

IT Diseases Alzheimer's disease: behavioral and mental disorders, nervous system disease

IT Chemicals &amp; Biochemicals (MeSH)

SKF-10-047; beta-amyloid 1-40 peptide:

central administration; toxicity; beta-amyloid 25-35 peptide; central administration; toxicity; desipramine; antidepressant-drug, pharmacodynamics; potency; sigma-1 agonist; igmesine; antidepressant-drug, pharmacodynamics; potency; sigma-1 agonist; progesterone; regulation

L152 ANSWER 33 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN  
 ACCESSION NUMBER: 2007455920 EMBASE Full-text  
 TITLE: DNA vaccine and the CNS axonal regeneration.  
 AUTHOR: Nie D.-Y.; Xu G.; Ahmed S.; Xiao Z.-C.  
 CORPORATE SOURCE: 2.-C.-Xiao, Department of Clinical Research, Singapore General Hospital, Singapore, Singapore.  
 xiao.zhi.chengesg.com.sg  
 Current Pharmaceutical Design, (Aug 2007) Vol. 13, No. 24, pp. 2500-2506.  
 Refs: 110  
 ISSN: 1381-6128 CODEN: CPDEFP

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT:

026 Immunology, Serology and Transplantation  
 029 Clinical and Experimental Biochemistry  
 032 Psychiatry  
 036 Health Policy, Economics and Management  
 037 Drug Literature Index  
 008 Neurology and Neurosurgery

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE:

Entered STN: 17 Oct 2007

Last Updated on STN: 17 Oct 2007

A B Vaccines have been considered in treating many CNS degenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), epilepsy, multiple sclerosis (MS), spinal cord injury (SCI), and stroke. DNA vaccines have emerged as novel therapeutic agents because of the effect of active ingredients on the immune system. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the treatment of axonal degeneration and demyelination. .COPYRGT. 2007 Bentham Science Publishers Ltd.

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Simplicity of their generation and application. Myelin components such as NOGO, MAG and OMGP are known to trigger demyelinating autoimmunity and to prevent axonal regeneration. For these reasons DNA vaccines encoding NOGO, MAG and OMGP, and fragments thereof, make them suitable vehicles for treatment of SCIs and MS. We need to obtain a deeper understanding of the immunologic mechanisms underlying the neuroprotective immunity to optimize the design of DNA vaccines for their use in clinical setting. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the treatment of axonal degeneration and demyelination. .COPYRGT. 2007 Bentham Science Publishers Ltd. (Review)

AB Vaccines have been considered in treating many CNS degenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), epilepsy, multiple sclerosis (MS), spinal cord injury (SCI), and stroke. DNA vaccines have emerged as novel therapeutic agents because of the simplicity of their generation and application. Myelin components such as NOGO, MAG and OMGP are known to trigger demyelinating autoimmunity and to prevent axonal regeneration. For these reasons DNA vaccines encoding NOGO, MAG and OMGP, and fragments thereof, make them suitable vehicles for treatment of SCIs and MS. We need to obtain a deeper understanding of the immunologic mechanisms underlying the neuroprotective immunity to optimize the design of DNA vaccines for their use in clinical setting. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the treatment of axonal degeneration and demyelination. .COPYRGT. 2007 Bentham Science Publishers Ltd.

DT Journal; General Review (Review)

AB Vaccines have been considered in treating many CNS degenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), epilepsy, multiple sclerosis (MS), spinal cord injury (SCI), and stroke. DNA vaccines have emerged as novel therapeutic agents because of the simplicity of their generation and application. Myelin components such as NOGO, MAG and OMGP are known to trigger demyelinating autoimmunity and to prevent axonal regeneration. For these reasons DNA vaccines encoding NOGO, MAG and OMGP, and fragments thereof, make them suitable vehicles for treatment of SCIs and MS. We need to obtain a deeper understanding of the immunologic mechanisms underlying the neuroprotective immunity to optimize the design of DNA vaccines for their use in clinical setting. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the treatment of axonal degeneration and demyelination. .COPYRGT. 2007 Bentham Science Publishers Ltd.

CT Medical Descriptors:

Alzheimer disease: DT, drug therapy  
 autoimmune disease: PC, prevention  
 brain injury: DT, drug therapy  
 cost effectiveness analysis  
 \*degenerative disease: DM, disease management  
 drug cost  
 drug efficacy  
 drug safety  
 drug targeting  
 epilepsy: DT, drug therapy  
 epilepsy: PC, prevention  
 human  
 humoral immunity  
 Huntington chorea: DT, drug therapy  
 Huntington chorea: PC, prevention  
 immunization  
 multiple sclerosis: DT, drug therapy  
 multiple sclerosis: PC, prevention  
 \*nerve fiber regeneration  
 neuroprotection  
 nonhuman  
 Parkinson disease: DT, drug therapy  
 Parkinson disease: PC, prevention  
 priority journal  
 review

spinal cord injury: DT, drug therapy  
 spinal cord injury: PC, prevention  
 stroke: DT, drug therapy  
 stroke: PC, prevention  
 T lymphocyte activation

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10/553,669

CT Drug Descriptors:  
Alzheimer disease vaccine: DT, drug therapy  
amyloid beta protein: DT, drug therapy  
brevican: EC, endogenous compound  
chondroitin ABC lyase: DT, drug therapy  
chondroitin ABC lyase: PD, pharmacology  
dendritic cell vaccine: DT, drug therapy  
DNA vaccine: AD, drug administration  
\*DNA vaccine: DT, drug therapy  
\*DNA vaccine: LV, intralymphatic drug administration  
\*DNA vaccine: IM, intramuscular drug administration  
\*DNA vaccine: NA, intranasal drug administration  
\*DNA vaccine: PO, oral drug administration  
in 1: DT, drug therapy  
in 1: PD, pharmacology  
matrix metalloproteinase: DT, drug therapy  
matrix metalloproteinase: PD, pharmacology  
monoclonal antibody: DT, drug therapy  
monoclonal antibody: PD, pharmacology  
myelin associated glycoprotein: EC, endogenous compound  
myelin basic protein: DT, drug therapy  
neurocan: EC, endogenous compound  
neuromodulin: EC, endogenous compound  
Nogo 66 receptor: EC, endogenous compound  
protein Nogo: EC, endogenous compound  
protein p75: EC, endogenous compound  
proteoglycan sulfate: EC, endogenous compound  
recombinant vaccine: DT, drug therapy  
tenascin: EC, endogenous compound  
verosican: EC, endogenous compound  
RN (amylid beta protein) 109770-29-8; (chondroitin ABC lyase) 9024-13-9; (neurocan) 170276-50-3; (protein p75) 91608-97-8; (verosican) 126968-45-4;

L152 ANSWER 34 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN  
ACCESSION NUMBER: 2007455917 EMBASE Full-text  
TITLE: Targeting the Nogo-a signalling pathway to promote recovery following acute CNS injury.  
AUTHOR: Walmsley A.R.; Mir A.K.

CORPORATE SOURCE: A.R. Walmsley, Novartis Institutes for Biomedical Research,  
4056 Basel, Switzerland. andrian.robert.walmsley@novartis.com  
SOURCE: Current Pharmaceutical Design, (Aug 2007) Vol. 13, No. 24,  
pp. 2470-2484.  
Ref: 151

COUNTRY: Netherlands  
DOCUMENT TYPE: Journal: General Review: (Review)  
FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
030 Clinical and Experimental Pharmacology  
037 Drug Literature Index  
008 Neurology and Neurosurgery  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 17 Oct 2007  
Last Updated on STN: 17 Oct 2007

AB Functional recovery following acute CNS injury in humans, such as spinal cord injury and stroke, is exceptionally limited, leaving the affected individual

with life-long neurological deficits such as loss of limb movement and sensation leading to a compromised quality of life. As yet, there is no effective treatment on the market for such injuries. This lack of functional recovery can at least in part be attributed to the restriction of axonal regeneration and neuroplasticity by several CNS myelin proteins that have been shown to be potent inhibitors of neurite outgrowth *in vitro*, namely myelin-associated glycoprotein (MAG), Nogo-A and oligodendrocyte myelin glycoprotein (OMgp). Nogo-A contains multiple neurite outgrowth inhibitory domains exposed on the surface of myelinating oligodendrocytes located within its amino-terminal region (amino-Nogo-A) and C-terminal region (Nogo-66). Although structurally dissimilar, Nogo-66, MAG and OMgp exert their inhibitory effects by binding the GpI-linked neuronal Nogo-66 receptor (NGR) that transduces the inhibitory signal to the cell interior via transmembrane co-receptors LINGO-1 and P75(NTR) or TROY. Although the receptor(s) for amino-Nogo-A are unknown, amino-Nogo-A and NGR ligands mutually activate the small GTPase RhoA. Consistent with their neurite outgrowth inhibitory function, approaches counter-acting Nogo-A using function-blocking antibodies, NGR using peptide antagonists and receptor bodies or RhoA using deactivating enzymes have been shown to significantly enhance axonal regeneration and neuroplasticity leading to improved functional recovery in animal models of acute CNS injury. These *in vivo* findings thus provide a sound basis for the development of an effective treatment for acute CNS injuries in humans. .COPYRGT. 2007 Bentham Science Publishers Ltd.

Journal: General Review: (Review)  
AB Functional recovery following acute CNS injury in humans, such as spinal cord injury and stroke, is exceptionally limited, leaving the affected individual with life-long neurological deficits such as loss of limb movement and sensation leading to a compromised quality of life. As yet, there is no effective treatment on the market for such injuries. This lack of functional recovery can at least in part be attributed to the restriction of axonal regeneration and neuroplasticity by several CNS myelin proteins that have been shown to be potent inhibitors of neurite outgrowth *in vitro*, namely myelin-associated glycoprotein (MAG), Nogo-A and oligodendrocyte myelin glycoprotein (OMgp). Nogo-A contains multiple neurite outgrowth inhibitory domains exposed on the surface of myelinating oligodendrocytes located within its amino-terminal region (amino-Nogo-A) and C-terminal region (Nogo-66). Although structurally dissimilar, Nogo-66, MAG and OMgp exert their inhibitory effects by binding the GpI-linked neuronal Nogo-66 receptor (NGR) that transduces the inhibitory signal to the cell interior via transmembrane co-receptors LINGO-1 and P75(NTR) or TROY. Although the receptor(s) for amino-Nogo-A are unknown, amino-Nogo-A and NGR ligands mutually activate the small GTPase RhoA. Consistent with their neurite outgrowth inhibitory function, approaches counter-acting Nogo-A using function-blocking antibodies, NGR using peptide antagonists and receptor bodies or RhoA using deactivating enzymes have been shown to significantly enhance axonal regeneration and neuroplasticity leading to improved functional recovery in animal models of acute CNS injury. These *in vivo* findings thus provide a sound basis for the development of an effective treatment for acute CNS injuries in humans. .COPYRGT. 2007 Bentham Science Publishers Ltd.

Medical Descriptors:  
amino terminal sequence  
carboxy terminal sequence  
\*central nervous system disease: DT, drug therapy  
Science Publishers Ltd.  
CT continuous infusion  
drug efficacy  
drug receptor binding  
drug targeting  
enzyme activation  
enzyme inhibition  
human

nerve cell plasticity  
 nerve fiber growth  
 nerve fiber regeneration  
 neuroprotection  
 nonhuman  
 oligodendroglia  
 optic nerve injury: DT, drug therapy  
 protein domain  
 quality of life  
 review  
 spinal cord injury: DT, drug therapy  
 stroke  
 Drug Descriptors:  
 amyloid precursor protein: EC, endogenous compound  
 amyloid beta protein: EC, endogenous compound  
 amyloid precursor protein: EC, endogenous compound  
 bucladesine: CB, drug combination  
 bucladesine: DT, drug therapy  
 bucladesine: PD, pharmacology  
 calcium: EC, endogenous compound  
 cyclic AMP: EC, endogenous compound  
 cyclic AMP dependent protein kinase: EC, endogenous compound  
 cyclic AMP responsive element protein: EC, endogenous compound  
 epidermal growth factor receptor kinase inhibitor: DT, drug therapy  
 epidermal growth factor receptor kinase inhibitor: PD,  
 pharmacology  
 immunoglobulin G1 antibody: CM, drug comparison  
 immunoglobulin G1 antibody: DT, drug therapy  
 immunoglobulin G1 antibody: PD, pharmacology  
 in 1: DT, drug therapy  
 in 1: CE, intracerebral drug administration  
 in 1: PD, pharmacology  
 mitogen activated protein kinase: EC, endogenous compound  
 monoclonal antibody: CM, drug comparison  
 monoclonal antibody: PD, pharmacology  
 monoclonal antibody 11C7: DT, drug therapy  
 monoclonal antibody 11C7: TL, intrathecal drug administration  
 monoclonal antibody 7B12: PD, pharmacology  
 monoclonal antibody 7B12: CM, drug comparison  
 monoclonal antibody 7B12: DT, drug therapy  
 monoclonal antibody 7B12: CV, intracerebroventricular drug administration  
 monoclonal antibody 7B12: TL, intrathecal drug administration  
 monoclonal antibody 7B12: PD, pharmacology  
 myelin associated glycoprotein: EC, endogenous compound  
 myelin protein: EC, endogenous compound  
 neurotrophin: EC, endogenous compound  
 Nogo 66 receptor: EC, endogenous compound  
 phosphodiesterase IV: EC, endogenous compound  
 protein kinase C: EC, endogenous compound  
 protein kinase C inhibitor: DT, drug therapy  
 protein kinase C inhibitor: TL, intrathecal drug administration  
 protein kinase C inhibitor: PD, pharmacology  
 \*protein Nogo A: EC, endogenous compound  
 RhoA guanine nucleotide binding protein: EC, endogenous compound

rolipram: CB, drug combination  
 rolipram: DT, drug therapy  
 rolipram: PD, pharmacology  
 rolipram: SC, subcutaneous drug administration  
 tissue inhibitor of metalloproteinase 2: EC, endogenous compound  
 tissue inhibitor of metalloproteinase 3: EC, endogenous compound  
 tumor necrosis factor: EC, endogenous compound  
 unindexed drug  
 RN (amyloid beta protein) 10970-29-8; (bucladesine) 16980-89-5, 62-74-3; (calcium) 740-70-2; (cyclic AMP responsive element binding protein) 130428-87-4, 60-92-4; (mitogen activated protein kinase) 142243-02-5; (protein kinase C) 141436-78-4; (protein P75) 91608-97-8; (rolipram) 61413-54-5; (tissue inhibitor of metalloproteinase 2) 124861-55-8; (tissue inhibitor of metalloproteinase 3) 145809-21-8, 164781-40-2  
 L152 ANSWER 35 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN  
 ACCESSION NUMBER: 20050306458 EMBASE Full-text  
 TITLE: NF- $\kappa$ B factor c-Rel mediates neuroprotection elicited by melus receptor agonists against amyloid  $\beta$ -peptide toxicity  
 AUTHOR: Pizzi M.; Sarnico I.; Boroni F.; Benarese M.; Steinberg N.; Mazzoleni G.; Dietz G.P.H.; Bahr M.; Liou H.-C.; Spano P.F.  
 CORPORATE SOURCE: M. Pizzi, Division of Pharmacology, Department of Biomedical Sciences and Biotechnologies, Viale Europa 11, 25123 Brescia, Italy. Pizzi@med.unibs.it  
 SOURCE: Cell Death and Differentiation, (Jul 2005), Vol. 12, No. 7, pp. 761-772.  
 Refs: 89 ISSN: 1350-9047 CODEN: CDDIEK  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review; (Review)  
 FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 005 General Pathology and Pathological Anatomy  
 008 Neurology and Neurosurgery  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 28 Jul 2005  
 Last Updated on STN: 28 Jul 2005

AB Opposite effects of nuclear factor- $\kappa$ B (NF- $\kappa$ B) on neuron survival rely on activation of diverse NF- $\kappa$ B factors. While p5 is necessary for glutamate-induced cell death, c-Rel mediates prosurvival effects of interleukin-1 $\beta$ . However, it is unknown whether activation of c-Rel-dependent pathways reduces neuron vulnerability to amyloid- $\beta$ (A $\beta$ ), a peptide implicated in Alzheimer's disease pathogenesis. We show that neuroprotection elicited by activation of metabotropic glutamate receptors type 5 (mGlu5) against A $\beta$  toxicity depends on c-Rel activation. A. beta. peptide induced NF- $\kappa$ B factors p50 and p65. The mGlu5 agonists activated c-Rel, besides p50 and p65, and the expression of manganese superoxide dismutase (MnSOD) and Bcl-X(L). Targeting c-Rel expression by RNA interference suppressed the induction of both antiapoptotic genes. Targeting c-Rel or Bcl-X(L) prevented the prosurvival effect of mGlu5 agonists. Conversely, c-Rel overexpression or TAK-Bcl-X(L) addition rescued neurons from A $\beta$  toxicity. These data demonstrate that melus receptor activation promotes a c-Rel-dependent antiapoptotic pathway responsible for

10/553,669

neuroprotection against A<sub>β</sub> peptide. .COPYRGT. 2005 Nature Publishing Group. All rights reserved.

**TI** NF-κB factor c-Rel mediates neuroprotection elicited by mGlu5 receptor agonists against amyloid .peptide toxicity.

**AB** Opposite effects of nuclear factor-κB (NF-κB) on neuron survival rely on activation of diverse NF-κB factors. While p65 is necessary for glutamate-induced cell death, c-Rel mediates prosurvival effects of interleukin-1β. However, it is unknown whether activation of c-Rel-dependent pathways reduces neuron vulnerability to amyloid-β (A<sub>β</sub>), a peptide implicated in Alzheimer's disease pathogenesis. We show that neuroprotection elicited by activation of metabotropic glutamate receptors type 5 (mGlu5) against A<sub>β</sub> toxicity depends on c-Rel activation. A<sub>β</sub> peptide induced NF-κB factors p50 and p65. The mGlu5 agonists activated c-Rel, besides p50 and p65, and the expression of manganese superoxide dismutase (MnSOD) and Bcl-X(L). Targeting c-Rel expression by RNA interference suppressed the induction of both antiapoptotic genes. Targeting c-Rel or Bcl-X(L) prevented the prosurvival effect of mGlu5 agonists. Conversely, c-Rel overexpression or TAT-Bcl-X(L) addition rescued neurons from A<sub>β</sub> toxicity. These data demonstrate that mGlu5 receptor activation promotes a c-Rel-dependent antiapoptotic pathway responsible for neuroprotection against A<sub>β</sub> peptide. .COPYRGT. 2005 Nature Publishing Group. All rights reserved.

**Medical Descriptors:**

• Alzheimer disease: ET, etiology  
animal cell  
cell survival  
controlled study

drug mechanism  
gene induction  
gene overexpression  
gene targeting  
human cell  
mouse  
neuroprotection  
neurotoxicity  
nonhuman  
pathogenesis  
priority journal  
protein expression  
protein function  
protein induction  
protein targeting  
review  
RNA interference

**Drug Descriptors:**

2 chloro 5 hydroxypyrenylglycine  
3 hydroxypyrenylglycine: PD, pharmacology  
amino acid receptor stimulating agent: PD, pharmacology  
•amyloid beta protein

•glutamate receptor 5: EC, endogenous compound

•glutamate receptor agonist: PD, pharmacology  
immunoglobulin enhancer binding protein: EC, endogenous compound

protein bcl-xL: EC, endogenous compound

protein p50: EC, endogenous compound

small interfering RNA: PD, pharmacology

superoxide dismutase: EC, endogenous compound

synaptotagmin: EC, endogenous compound

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transactivator protein: EC, endogenous compound  
\*transcription factor Rel: EC, endogenous compound

unclassified drug  
(amyloid beta protein) 109770-29-8; (protein bcl-xL) 15103-38-4; (superoxide dismutase) 37284-21-6, 9016-01-7,  
9054-89-1; (synaptotagmin) 134193-27-4

**RN** L152 ANSWER 36 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN EMBASE Full-text  
**ACCESSION NUMBER:** 2005122738 EMBASE  
**TITLE:** New therapeutic strategies and drug candidates for neurodegenerative diseases: p53 and TNF-α inhibitors, and GIP-1 receptor agonists

**AUTHOR:** Greig N.H.; Mattson M.P.; Perry T.; Chan S.L.; Giordano T.; Sambamurti K.; Rogers J.T.; Ovadia H.; Lahiri D.K.

**CORPORATE SOURCE:** N.H. Greig, Drug Design and Development Section, Laboratory of Neurosciences, Gerontology Research Center, 5600 Nathan Shock Drive, Baltimore, MD 21224, United States.  
greign@grc.nih.gov

**SOURCE:** Annals of the New York Academy of Sciences, (2004) Vol. 1035, pp. 290-315.  
Ref: 119  
ISSN: 0077-8923 CODEN ANYAA9

**COUNTRY:** United States  
**DOCUMENT TYPE:** Journal; Conference Article; (Conference paper)  
**FILE SEGMENT:** 030 Clinical and Experimental Pharmacology  
037 Drug Literature Index  
052 Toxicology  
008 Neurology and Neurosurgery

**LANGUAGE:** English  
**SUMMARY LANGUAGE:** English  
**ENTRY DATE:** Entered STN: 31 Mar 2005  
Last Updated on STN: 31 Mar 2005

**AB** Owing to improving preventative, diagnostic, and therapeutic measures for cardiovascular disease and a variety of cancers, the average ages of North Americans and Europeans continue to rise. Regrettably, accompanying this increase in life span, there has been an increase in the number of individuals afflicted with age-related neurodegenerative disorders, such as Alzheimer's disease, Parkinson's disease, and stroke. Although different cell types and brain areas are vulnerable among these, each disorder likely develops from activation of a common final cascade of biochemical and cellular events that eventually lead to neuronal dysfunction and death. In this regard, different triggers, including oxidative damage to DNA, the overactivation of glutamate receptors, and disruption of cellular calcium homeostasis, albeit initiated by different genetic and/or environmental factors, can instigate a cascade of intracellular events that induce apoptosis. To forestall the neurodegenerative process, we have chosen specific targets to inhibit that are at a pivotal rate-limiting steps within the pathological cascade. Such targets include TNF-α, p53, and GIP-1 receptor. The cytokine TNF-α is elevated in Alzheimer's disease, Parkinson's disease, stroke, and amyotrophic lateral sclerosis. Its synthesis can be reduced via posttranslational mechanisms with novel analogues of the classic drug, thalidomide. The intracellular protein and transcription factor, p53, is activated by the Alzheimer's disease toxic peptide, A<sub>β</sub>, as well as by excess glutamate and hypoxia to trigger neural cell death. It is inactivated by novel tetracyclinebenzothiazole and -oxazole analogues to rescue cells from lethal insults. Stimulation of the glucagon-like peptide-1 receptor (GLP-1R) in brain is associated with neurotrophic functions that, additionally, can protect cells against excess

10/553,669

glutamate and other toxic insults. .COPYRIGHT. 2004 New York Academy of Sciences.

New therapeutic strategies and drug candidates for neurodegenerative diseases: p53 and TNF- $\alpha$  inhibitors, and GLP-1 receptor agonists.

Annals of the New York Academy of Sciences, (2004) Vol. 1035, pp. 290-315.

Ref.: 119 ISSN: 0077-8923 CODEN: ANYA9

Owing to improving preventative, diagnostic, and therapeutic measures for cardiovascular disease and a variety of cancers, the average ages of North Americans and Europeans continue to rise. Regrettably, accompanying this increase in life span, there has been an increase in the number of individuals afflicted with age-related neurodegenerative disorders, such as Alzheimer disease, Parkinson disease, and stroke. Although different cell types and brain areas are vulnerable among these, each disorder likely develops from activation of a common final cascade of biochemical and cellular events that eventually lead to neuronal dysfunction and death. In this regard, different triggers, including oxidative damage to DNA, the overactivation of glutamate receptors, and disruption of cellular homeostasis, albeit initiated by different genetic and/or environmental factors, can instigate a cascade of intracellular events that induce apoptosis. To forestall the neurodegenerative process, we have chosen specific targets to inhibit that at pivotal rate-limiting steps within the pathological cascade. Such targets include TNF- $\alpha$ , p53, and GLP-1 receptor. The cytokine TNF- $\alpha$  is elevated in Alzheimer's disease, stroke, and amyotrophic lateral sclerosis. Its synthesis can be reduced via posttranscriptional mechanisms with novel analogues of the classic drug, thalidomide. The intracellular protein and transcription factor, p53, is activated by the Alzheimer's disease peptide, A $\beta$ , as well as by excess glutamate and hypoxia to trigger neural cell death. It is inactivated by novel tetrahydrobenzothiazole and oxazole analogues to rescue cells from lethal insults. Stimulation of the glucagon-like peptide-1 receptor (GLP-1R) in brain is associated with neurotrophic functions that, additionally, can protect cells against excessive glutamate and other toxic insults. .COPYRIGHT. 2004 New York Academy of Sciences.

Sciences.

- Alzheimer disease:** DT, drug amyotrophic lateral sclerosis
- brain region:** calcium homeostasis
- apoptosis:**
- cell type:**
- conference paper:**
- 'degenerative disease':** DT
- drug synthesis:**
- drug targeting:**
- environmental factor:**
- enzyme inhibition:**
- genetic transcription:**
- heredity:**
- human:**
- nerve cell necrosis:**
- oxidative stress:**
- Parkinson disease:** DT, drug therapy
- Drug Descriptors:**
- dithiothahalidomide:** DV, 2',6', dithiothahalidomide; F

10/553,669

## SCORE Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55-669-4.rup.

Score\_Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result

20071121\_092710\_us-10-553-669-4.rup.

[Go Back to previous page](#)

**3M protein - protein search, using sw model**  
**Run on:** November 21, 2007, 09:27:44 : Search time 150 Seconds  
 (without alignments)  
 2284.144 Million cell updates/sec

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqo, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

```
UniProt_8.4:*
1: uniprot_sprot:*
2: uniprot_trembl:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query	Match	Length	DB ID	Description
1	1711	100.0	473	1	RTNAR_HUMAN	Q9brx6 homo sapien
2	1670	97.6	473	1	RTNAR_MACPA	Q9noe3 macaca fasci
3	1531	89.5	473	1	RTNAR_MOUSE	Q9rp18 mus musculus
4	1529	89.4	473	1	RTNAR_RAT	Q9rm75 ratus norvegicus
5	927.5	54.2	479	2	Q6DH16_BRARE	Q6dh16 brachydanio
6	927.5	54.2	479	2	Q6X3V5_BRARE	Q6xs3 brachydanio
7	774.5	45.3	412	2	Q4RRB8_TEETING	Q4rrb8 tetraodon niger
8	774	45.2	420	1	R4RL22_MOUSE	Q7me620 mus musculus

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

RESULT 1  
**RTNAR\_HUMAN** STANDARD:  
 ID RTNAR\_HUMAN  
 AC Q9Z2R6;  
 DT 25-NOV-2002, integrated into UniProtKB/Swiss-Prot.  
 DT 01-JUN-2001, sequence version 1.  
 DT 27-JUN-2006, entry version 54.  
 DE Retinol-4 receptor precursor (Nogo receptor) (Ngr) (Nogo-66 receptor).  
 DE Synonyms=NGOR; ORFNames=UNQ333/PRO526;  
 DN Name=RTNAR; Homo sapiens (Human).

SUMMARIES

RN Nucleotide sequence [MENa].  
 AC Q9Z2R6;  
 DT 25-Nov-2002, integrated into UniProtKB/Swiss-Prot.  
 DT 01-Jun-2001, sequence version 1.  
 DT 27-Jun-2006, entry version 54.  
 DE Retinol-4 receptor precursor (Nogo receptor) (Ngr) (Nogo-66 receptor).  
 DE Synonyms=NGOR; ORFNames=UNQ333/PRO526;  
 DN Name=RTNAR; Homo sapiens (Human).  
 DC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini; Catarrhini; Homidae; Homo.  
 DX NCBI\_TaxID=9606;  
 RN Nucleotide sequence [MENa].  
 AC Q9Z2R6;  
 DT 25-Nov-2002, integrated into UniProtKB/Swiss-Prot.  
 DT 01-Jun-2001, sequence version 1.  
 DT 27-Jun-2006, entry version 54.  
 DE Retinol-4 receptor precursor (Nogo receptor) (Ngr) (Nogo-66 receptor).  
 DE Synonyms=NGOR; ORFNames=UNQ333/PRO526;  
 DN Name=RTNAR; Homo sapiens (Human).  
 DC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini; Catarrhini; Homidae; Homo.  
 DX NCBI\_TaxID=9606;

## SCORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-5.rup.

Score,Home,Page Retrieve,Application,List SCORE,System,Overview SCORE,FAQ,Comments / Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-5.rup.

[Go Back to previous page](#)[Go Back to previous page](#)

**Title:** GenCore version 6.2.1  
**Run on:** November 21, 2007, 09:27:44 ; Search time 133 Seconds  
**Sequence:** ORLAGRDKLRLATSDLEGCA 284  
**Scoring table:** BLOSUM62

**Perfect score:** 1511  
**Sequence:** CPGACVYNEPKVYTSRPOQ.....ORLAGRDKLRLATSDLEGCA  
**Scoring table:** BLOSUM62  
**Gapop 10.0 . Gapext 0.5**

Searched:

3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters:

3281787

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt\_8.4:  
 1: uniprot\_sprot:  
 2: uniprot\_trembl1:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match Length DB ID	Description
1	1481	98.0 473 1 RTN4R RAT	Q9m7s ratus norv
2	1444	95.6 473 1 RTN4R MOUSE	Q9pi8 mus musculu
3	1352	69.5 473 1 RTN4R_MACFA	Q9n03 macaca fasc
4	1351	89.4 473 1 RTN4R_HUMAN	Q9bz6 homo sapien
5	910	60.2 479 2 Q6D9G BRAKE	Q6dh6 brachydanio
6	910	60.2 479 2 Q6X15 BRAKE	Q6w22 brachydanio
7	730.5	48.3 478 2 Q6W22 BRAKE	Q6w33 brachydanio
8	729.5	48.3 478 1 R4R12_HUMAN	Q86un3 homo sapien

## SUMMARIES

Result No.	Score	Query Match Length DB ID	Description
1	1481	98.0 473 1 RTN4R RAT	Q9m7s ratus norv
2	1444	95.6 473 1 RTN4R MOUSE	Q9pi8 mus musculu
3	1352	69.5 473 1 RTN4R_MACFA	Q9n03 macaca fasc
4	1351	89.4 473 1 RTN4R_HUMAN	Q9bz6 homo sapien
5	910	60.2 479 2 Q6D9G BRAKE	Q6dh6 brachydanio
6	910	60.2 479 2 Q6X15 BRAKE	Q6w22 brachydanio
7	730.5	48.3 478 2 Q6W22 BRAKE	Q6w33 brachydanio
8	729.5	48.3 478 1 R4R12_HUMAN	Q86un3 homo sapien

## RESULT 1

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

<http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c1&itemName=20...>

11/27/2007

## ALIGNMENTS

Score	Length	Start	End	Sequence
9	729.5	48.3	420	Q17RL9_HUMAN
10	726.5	48.1	457	Q6WD21_BRANE
11	725.5	48.0	441	1 R4R12_HUMAN
12	721.5	47.7	412	Q4RUB_TEING
13	721.5	47.7	420	1 R4R12_MOUSE
14	717.5	47.5	445	1 R4R12_MOUSE
15	716.5	47.4	420	1 R4R12_RAT
16	714.5	47.3	310	2 Q4RQ4_TEING
17	712.5	47.2	445	1 R4R12_RAT
18	677	44.8	324	2 Q4S3K_TEING
19	657.5	43.5	411	2 Q4S16_TEING
20	631.5	41.8	458	2 Q6WD23_BRANE
21	360.5	23.9	602	2 Q4R542_RAT
22	357.5	23.7	652	1 LRC4_MOUSE
23	357.5	23.7	653	1 LRC4_HUMAN
24	357.5	23.7	762	2 Q5JY13_HUMAN
25	357.5	23.7	778	2 Q6NUT6_HUMAN
26	354.5	23.5	597	2 Q3I0Y3_BOVIN
27	354.5	23.5	602	2 Q58CS0_BOS_TAURUS
28	352	23.3	411	2 Q4SP93_TETRAODON
29	350.5	23.2	692	2 Q4GD0_HUMAN
30	350	23.2	466	2 Q66IW3_XENIA
31	350	23.2	935	2 Q4SBT7_TETRAODON
32	342.5	22.7	709	1 LRCB_MOUSE
33	338.5	22.4	481	1 NYX_HUMAN
34	338.5	22.4	481	2 Q2M14_HUMAN
35	338.5	22.4	713	1 LRCB_HUMAN
36	337.5	22.3	640	2 Q4JTM_HUMAN
37	335.5	22.2	640	1 NGIL_HUMAN
38	335.5	22.2	640	1 NGIL_MOUSE
39	335.5	22.2	640	2 Q505E5_MOUSE
40	334	22.1	417	2 Q6F4J7_PETROMYZON
41	333.5	22.1	339	2 Q4S68_TEING
42	330.5	21.9	370	2 Q2YE77_EPTST
43	330.5	21.9	370	2 Q2YE78_EPTST
44	328.5	21.7	393	2 Q32R29_EPTBU
45	327.5	21.7	257	2 Q2VG99_PETNA

## RESULTS

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

ID	RTN4R RAT	STANDARD:	PRINT:
AC	Q99r75;		
DT	25-NOV-2002, integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005, sequence version 2.		
DT	27-JUN-2006, entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor) (Ngo-66 receptor).		
DR	Name=Rtn4; Synonyms=Rat;		
DS	Rattus norvegicus (Rat).		
JC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathii; Muroidea; Muridae; Murinae; Ratius.		
JM	NCBI_TaxID=10116;		
RN			
RP	NUCLEOTIDE SEQUENCE [MRNA].		
RC	STRAIN-Sprague-Dawley;		
RA	Jin W.-L., Jia W., Long M., Ju G.;		
RT	*Identification and preparation of polyclonal antibody against rat Nogo receptor.*		
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.		
RN	[2]		

## SCORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-6.rup.

Score Home Page RetrieveApplicationList SCORE System.Overview SCORE FAQ Comments./Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result

Run on: November 21, 2007. 09:27:44 ; Search time 149 Seconds  
(without alignments)

Sequence: 2284.144 Million cell updates/sec

Go Back to previous page

**Gencore** version 6.2.1  
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2M protein - protein search, using sw model

Run on: November 21, 2007. 09:27:44 ; Search time 149 Seconds

(without alignments)  
Scoring table: BLOSUM62  
Title: US-10-553-669-6  
Perfect score: 1695  
Sequence: CPGACVYNEPKVYTSRPOO.....TDBELLGLPKCCOPDAADKA 318

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : UniProt\_8.4:\*

1: uniprot\_sprot:\*

2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Query	Match Length	DB ID	Description
1	1665	98.2	473 1 RTN4R RAT	Q9m75 ratus norv
2	1611	95.0	473 1 RTN4R MOUSE	Q9ap8 mus musculu
3	1492	68.0	473 1 RTN4R_MACFA	Q9n03 macaca fasc
4	1489	87.8	473 1 RTN4L_HUMAN	Q9bz6 homo sapien
5	930.5	54.9	479 2 Q6DH6_BRARE	Q6dh76 brachydanio
6	930.5	54.9	479 2 Q6X3V5_BRARE	Q6x3y5 brachydanio
7	738	43.5	420 1 R4RL2_HUMAN	Q86un3 homo sapien
8	738	43.5	420 2 Q17R9_HUMAN	Q17r19 homo sapien

RESULT 1				
ID	RTN4R RAT	STANDARD;	RT;	473 AA.
AC	Q9m75;			
DT	25-NOV-2002,	integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005,	sequence version 2.		
DT	27-JUN-2006,	entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor)	(Nogo receptor)	(Nogo receptor)	(Nogo-66
DE	Name=RTN4; Synonyms=Nogo;			
DS	Rattus norvegicus (Rat).			
DC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
DC	Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathia;			
DC	Muroidea; Muridae; Murinae; Rattus.			
DN	NCBI_TaxID=10116;			
RN				
RP	NUCLEOTIDE SEQUENCE [MRNA].			
RC	STRAIN=Sprague-Dawley;			
RA	Jin W.-L., Jia W., Long M., Ju G.;			
RT	*Identification and preparation of polyclonal antibody against rat Nogo Receptor.*			
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.			
RN	[2]			

<http://es/ScoreAccessWeb/GetItem.action?appId=10553669&seqId=09323b678059e7c2&itemName=20...>

11/27/2007

CORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55... Page 1 of 30

CORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55... Page 2 of 30

9	737	43.5	441 1 R4RL1_HUMAN	Q86un2 homo sapien
10	731.5	43.2	478 2 Q6WZD2_BRARE	Q6wzd2 brachydanio
11	730	43.1	445 1 R4RL1_MOUSE	Q6k053 mus musculu
12	729.5	43.0	412 2 Q4RUB5_TEING	Q4rub5 tetraodon n
13	726.5	42.9	457 2 Q6WDZ1_BRARE	Q7wm620 mus musculu
14	725	42.8	420 1 R4RL2_MOUSE	Q80wq0 ratus norv
15	724	42.7	445 1 R4RL1_RAT	Q80wq1 ratus norv
16	720	42.5	420 1 R4RL2_RAT	Q80wq2 ratus norv
17	714.5	42.2	310 2 Q4RQ4_TEING	Q4rqd4 tetraodon n
18	677	39.9	324 2 Q4SK9_TEING	Q4sk99 tetraodon n
19	664	39.2	411 2 Q4S16_TEING	Q4s616 tetraodon n
20	631.5	37.3	458 2 Q6WDZ3_BRARE	Q8wz3 brachydanio
21	367	21.7	652 2 Q45R42_RAT	Q4sr42 ratus norv
22	362	21.4	652 1 LRC4_MOUSE	Q99ph1 mus musculu
23	361.5	21.3	653 1 LRC4_HUMAN	Q9hw1 homo sapien
24	358.5	21.2	597 2 Q3I0Y3_BOVIN	Q3i0y3 bos taurus
25	358.5	21.2	602 2 Q5BES0_BOS	Q58cs0 bos taurus
26	358.5	21.2	762 2 Q5JY13_HUMAN	Q5jy13 homo sapien
27	358.5	21.2	778 2 Q6NNU6_HUMAN	Q6nnu6 homo sapien
28	355.5	21.0	935 2 Q4S97_TEING	Q4s9b7 tetraodon n
29	354	20.9	411 2 Q4S9F3_TEING	Q4s9p1 tetraodon n
30	351.5	20.7	692 2 Q4JTW0_HUMAN	Q4g050 homo sapien
31	350	20.6	466 2 Q66W13_XENLA	Q66ix3 xenopus lae
32	342.5	20.2	709 1 LRCB_MOUSE	Q6c152 mus musculu
33	338.5	20.0	481 1 NYX_HUMAN	Q9gz15 homo sapien
34	338.5	20.0	481 2 Q2M154_HUMAN	Q2m154 homo sapien
35	338.5	20.0	713 1 LRCB_HUMAN	Q9nt59 homo sapien
36	337.5	19.9	640 2 Q4JTW0_HUMAN	Q4jtw0 homo sapien
37	335.5	19.8	640 1 NGI1_HUMAN	Q9hc12 homo sapien
38	335.5	19.8	640 1 NGI1_MOUSE	Q505es mus musculu
39	335.5	19.8	640 2 Q505es_MOUSE	Q505es mus musculu
40	335	19.8	1529 2 Q7ZK12_XENIA	Q7zx12 xenopus lae
41	334	19.7	417 2 Q6E4J7_BETTA	Q6e4j7 petromyzon
42	333.5	19.7	339 2 Q4S68_TEING	Q4su68 tetraodon n
43	333	19.6	782 2 Q5TV4_HUMAN	Q5tv04 homo sapien
44	333	19.6	1461 2 Q5WV18_HUMAN	Q5wv18 homo sapien
45	333	19.6	1534 1 SLRT1_HUMAN	Q750593 homo sapien

## ALIGNMENTS

RESULT 1	RTN4R RAT	STANDARD;	RT;	473 AA.
ID	RTN4R RAT	STANDARD;	RT;	473 AA.
AC	Q9m75;			
DT	25-NOV-2002,	integrated into UniProtKB/Swiss-Prot.		
DT	10-MAY-2005,	sequence version 2.		
DT	27-JUN-2006,	entry version 41.		
DE	Reticulon-4 receptor precursor (Nogo receptor)	(Nogo receptor)	(Nogo receptor)	(Nogo-66
DE	Name=RTN4; Synonyms=Nogo;			
DS	Rattus norvegicus (Rat).			
DC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
DC	Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathia;			
DC	Muroidea; Muridae; Murinae; Rattus.			
DN	NCBI_TaxID=10116;			
RN				
RP	NUCLEOTIDE SEQUENCE [MRNA].			
RC	STRAIN=Sprague-Dawley;			
RA	Jin W.-L., Jia W., Long M., Ju G.;			
RT	*Identification and preparation of polyclonal antibody against rat Nogo Receptor.*			
RL	Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.			
RN	[2]			

<http://es/ScoreAccessWeb/GetItem.action?appId=10553669&seqId=09323b678059e7c2&itemName=20...>

11/27/2007

**SCORE Search Results D**

Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

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GenCore version 6.2.1

3M protein - protein search, using sw model

Perfect score:

Sequence: 1 MKRASAGGSRLLLAWLWLNQRA.....TDEEPLGLPKCCQPDADKA 344

Scoring table: BLOSUM62

Gapop 10.0 . Gapext 0.5

Searched: 283416 seqs. 96216763 residues

Total number of hits satisfying chosen parameters:

283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR\_80.\*

1: Pir1:\*

2: Pir2:\*

3: Pir3:\*

4: Pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

**SUMMARIES**

Result No.	Score	Query	Match	Length	DB ID	Description
1	367	19.9	1531	2	T42218	slit-1 protein homolog - rat
2	342.5	18.6	605	2	M41915	insulin-like growth factor-binding protein - rat
3	336	18.2	1523	2	T13953	MEGF5 protein - rat
4	310.5	17.9	605	2	JCS239	insulin-like growth factor-binding protein - rat
5	327	17.8	1469	2	B31665	slit protein 2 preproprotein - preprotein - rat
6	327	17.8	1480	2	A36665	slit protein 1 preproprotein - preprotein - rat
7	321.5	17.5	622	2	JC7973	synleucin - human insulin-like growth factor-binding protein - rat
8	310	16.8	603	2	JC6128	chondroadherin preprotein - preprotein - rat
9	309.5	16.8	361	2	A53800	platelet membrane protein - preprotein - rat
10	304	16.5	560	2	A60164	insulin-like growth factor-binding protein - preprotein - rat
11	299.5	16.3	603	2	JC1282	ASAGGSRLIAW-VIWIQAWQV-AAPCPGACVYNEPKVTTSCPOQGLQAVPVGIPAAQSQR 61

http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&amp;seqId=03323b678059e7c1&amp;itemName=20... 11/27/2007

http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&amp;seqId=09423b678059e7c3&amp;itemName=20... 11/27/2007

CORE Search Results Details for Application 10553669 and Search Result 20071121\_092712\_us-10-55... Page 2 of 16

12	295	16.0	907	2	JG0193	G protein-coupled receptor G protein membrane
13	291	15.8	1091	2	AS8532	orphan G protein-coupled receptor G protein membrane
14	290.5	15.8	907	2	JE0176	lysine carboxypeptidase - rat
15	287.5	15.6	536	2	A34901	oncotrotropin alpha
16	278.5	15.1	420	2	AS5331	leucine-rich alpha
17	261	14.2	312	1	NBH02	neuronal leucine-rich glycoprotein - rat
18	256.5	13.9	707	2	JC7763	decorin precursor - rabbit
19	246.5	13.4	359	1	NBH028	decorin precursor - rabbit
20	241	13.1	1025	2	T42626	decorin precursor - rabbit
21	238.5	12.9	357	2	S24317	decorin precursor - rabbit
22	234.5	12.7	482	2	A49121	cell-surface molecule connectin precursor - rabbit
23	234.5	12.7	682	2	A43318	decorin precursor - rabbit
24	233.5	12.7	360	2	S06380	decorin precursor - rabbit
25	230.5	12.5	360	2	T42020	hypothetical protein - rat
26	230	12.5	789	2	T28714	decorin precursor - rat
27	230	12.5	1355	2	T28715	hypothetical protein - rat
28	227.5	12.4	1515	2	S46224	hypothetical protein - rat
29	227	12.3	333	2	T34555	hypothetical protein - rat
30	226.5	12.3	594	2	T23841	gene wheeler protein - rat
31	226	12.3	1389	2	T13982	Tir protein - fruit fly
32	224	12.2	1385	2	T13887	decorin precursor - fruit fly
33	221.5	12.0	354	2	A55854	hypothetical protein - fruit fly
34	218.5	11.9	610	2	T23836	decorin precursor - fruit fly
35	215.5	11.7	354	2	S29145	proline-rich protein - fruit fly
36	208	11.3	382	2	T139058	disease resistance protein - fruit fly
37	208	11.3	1112	2	T134504	hypothetical protein - fruit fly
38	206.5	11.2	562	2	T134319	hypothetical protein - fruit fly
39	205.5	11.2	1066	2	T15864	hypothetical protein - fruit fly
40	204	11.1	738	2	T19938	lumican precursor - fruit fly
41	202	11.0	342	2	A46743	gap junction protein - fruit fly
42	202	11.0	662	2	S42799	lumican, secretory gap junction protein - fruit fly
43	200	10.9	338	2	S52984	glycan precursor - fruit fly
44	200	10.9	369	2	S32559	lumican, secretory gap junction protein - fruit fly
45	199.5	10.8	626	1	NBH01A	platelet glycoprotein IIIa precursor - fruit fly

**ALIGNMENTS**

RESULT 1	R42218	slit-1 protein homolog - rat
	N; Alternative names: MEGF4	protein
	C; Species: Rattus norvegicus (Norway rat)	
	C; Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004	
	C; Accession: T42218	
	R; Nakayama, M.; Nakajima, D.; Nagase, T.; Nomura, N.; Seki, N.; Ohara, O.	
	S; Genomics 51, 27-34, 1998	
	A; Title: Identification of high-molecular-weight proteins with multiple EGF-like motifs by motif-trace	
	A; Reference number: Z14126; MUID: 88360089; PMID: 9630310	
	A; Accession: T42218	
	A; Status: preliminary; translated from GB/EMBL/DDBJ	
	A; Genetics:	
	A; Molecule type: mRNA	
	A; Residues: 1-1531 <NAK>	
	C; Cross-references: UNIPROT:086279; UNIPARC:UPI000004F20B; EMBL:AB011530; PIDN:93449289; PMID: 963246	
	A; Experimental source: strain Sprague-Dawley; brain	
	Query Match Score 19.9%; Best Local Similarity 21.9%; Length 1531;	
	DB 2; Pred. No. 2,3e-23; Mismatches 133; Indels 198; Gaps 10;	
	Matches 110; Conservative 63; Mismatches 133; Indels 198; Gaps 10;	
	4 ASAGGSRLIAW-VIWIQAWQV-AAPCPGACVYNEPKVTTSCPOQGLQAVPVGIPAAQSQR 61	2y

**SCORE Search Results**

D1 Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

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Copyright (c) 1993 - 2007 Bioceleration Ltd.	GenCore version 6.2.1	12	279.5	15.2	361	2	A53860	chondrodherin pre
		13	278	15.1	907	2	JG0193	G protein-coupled
		14	277	15.1	1091	2	A58332	glial cell membran
		15	266	14.5	536	2	A34201	lysine carboxypept
		16	250	13.6	420	2	A53511	oncotelial tropheb
		17	243	13.2	312	1	NBH02	leucine-rich alpha
		18	235.5	12.8	594	2	T23841	hypothetical prote
		19	234	12.7	707	2	JC7763	neuronal leucine-r
		20	230.5	12.5	359	1	NBHD08	decorin precursor
		21	229	12.5	682	2	A49121	cell-surface molec
		22	229	12.5	682	2	A43318	connectin precursor
		23	227.5	12.4	360	2	S06280	decorin precursor
		24	227.5	12.4	610	2	T23836	hypothetical prote
		25	221.5	12.1	360	2	I47020	decorin - rabbit
		26	220	12.0	1389	2	T13852	gene wheeler prote
		27	218	11.9	1385	2	T13887	tlr protein - frui
		28	217.5	11.8	357	2	S24317	decorin precursor
		29	214.5	11.7	354	2	A55454	hypothetical prote
		30	213.5	11.6	653	2	T2594	hypothetical prote
		31	213	11.6	333	2	T34555	decorin precursor
		32	213	11.6	789	2	T28714	disease resistance
		33	213	11.6	1355	2	T28715	hypothetical prote
		34	209	11.4	182	2	T34068	proline-arginine-
		35	207	11.3	562	2	T34319	hypothetical prote
		36	204.5	11.1	738	2	T19338	decorin precursor
		37	203.5	11.1	354	2	S29145	disease resistance
		38	203.5	11.1	1016	2	T30533	peroxidasin - frui
		39	203.5	11.1	1535	2	S46224	secreted leucine-r
		40	203	11.0	1025	2	T4626	disease resistance
		41	202.5	11.0	1112	2	T10504	hypothetical prote
		42	200.5	10.9	1066	2	T15064	fibromodulin precu
		43	196.5	10.7	375	2	S05390	hypothetical prote
		44	196	10.7	961	2	T23395	plakophilin-like
		45	195.5	10.6	680	2	T19339	hypothetical prote

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

## ALIGNMENTS

## RESULT 1

R42218	slit-1 protein homolog - rat
1: Piri:*	N; Alternate names: MEGF4 protein
2: Pirz:*	C; Species: Rattus norvegicus (Norway rat)
3: pir2:*	C; Date: 03-Dec-1999 #sequence_Revision 03-Dec-1999 #text_change 09-Jul-2004
4: piri:*	C; Accession: T42218
	R; Nakayama, M.; Nakajima, D.; Nagase, T.; Nomura, N.; Seki, N.; Ohara, O.
	Senomics 51, 27-34, 1998
	A; Title: Identification of high-molecular-weight proteins with multiple EGF-like motifs by motif-tr
	A; Reference number: 214126; PMID:3830089; PMID:9633010
	A; Accession: T42218
	A; Status: preliminary; translated from GB/ENBL/DDBJ
	A; Molecule type: mRNA
	A; Residue: 1-1531 <NAK>
	A; Superfamily: fruit fly slit protein; EGF homology; leucine-rich alpha-2-glycoprotein repeat homolo
	C; Genetics:
	C; Query Match 20.1%; Best Local Similarity 22.4%; Score 369; DB 2; Length 1531;
	Matches 117; Conservative 67; Mismatches 150; Indels 194; Gaps 11;
	2: ASSGGSRPLPTM-VLWLQAMRV-ATPPCGACVYNEPKVYTSRPOQGLQAVPAGIAPASSQR 61

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Post-processing: Minimum Match 0%		Maximum Match 100%		Alignments	
Listing First 45 summaries					
Databace :	PIR_80.*			RESULT 1	
1:	Pir1;*			A41915	insulin-like growth factor-binding complex acid-labile chain precursor - human
2:	Pir2;*			N/A: Alternate names: Acid-Labile Subunit (ALS)	
3:	Pir3;*			C: Species: Homo sapiens (man)	
4:	Pir4;*			C: Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004	
				C: Accession: A41915	R: Leong, S.R.; Baxter, R.C.; Camerato, T.; Dai, J.; Wood, W.I.
				M: 1. Endocrinol. 6, 870-876, 1992	A: Title: Structure and functional expression of the acid-labile subunit of the insulin-like growth 1
				M: Reference number: A41915; MUID:22357025; PMID:179671	A: Accession: A41915
				A: Cross-references: UNIPARC:UP1000000088A; GB:M86826; PIDN:9184807; PIDN:AAA36047_1;	A: Molecule type: mrna; protein
				A: Residues: 1-605 <LEO>	A: Experimental source: liver
				A: Note: sequence extracted from NCBI backbone (NCBIP:110171)	A: Note: sequence extracted from NCBI backbone (NCBIP:110171)
				F: 75-122/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR1>	F: 75-122/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR1>
				F: 123-146/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR2>	F: 123-146/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR2>
				F: 147-170/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR3>	F: 147-170/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR3>
				F: 171-194/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR4>	F: 171-194/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR4>
				F: 215-218/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR5>	F: 215-218/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR5>
				F: 219-246/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR6>	F: 219-246/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR6>
				F: 243-266/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR8>	F: 243-266/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LR8>

Pred. No. 18 is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

**SUMMARIES**

Result No.	Score	Query Match	Length	DB ID	Description
1	342.5	20.0	605	2 A41915	insulin-like growth
2	333	19.5	1531	2 T42216	slc11 protein - rat
3	329	19.2	1523	2 T13953	MEGRs protein - rat
4	328.5	19.2	605	2 JC5239	insulin-like growth
5	325	19.0	1465	2 B36665	slc1 protein 2 pre
6	325	19.0	1480	2 A36665	slc1 protein 1 pre
7	321.5	18.8	622	2 JC7973	synleucin - human
8	306.5	17.9	361	2 A60160	chondroadherin pre
9	305	17.8	603	2 JC6128	insulin-like growth
10	304	17.8	560	2 A60164	platelet membrane
11	297	17.4	603	2 JC1282	insulin-like growth

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<http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=0923b678059e7c6&itemName=20...>

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**SCORE Search Results D**

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Copyright (c) 1993 - 2007 Bioceleration Ltd.	GenCore version 6.2.1	20	279.5	18.5	361	2	A53860
2M protein - protein search, using sw model	US-10-553-669-5	13	278	18.4	907	2	JG193
Perfect score:	IS11	14	266	17.6	536	2	A34901
Sequences:	1 CPEACVYNEPKVTTSRPQQ.....QRLAGRDLKRLATSDLEGCA 284	15	253.5	16.8	1091	2	A58532
Scoring table:	BLOSUM62	16	249.5	16.5	420	2	A53531
Scoring table:	Gapop 10.0 , Gapext 0.5	17	243	16.1	312	2	NBHUA2
Searched:	283416 seqs, 96216763 residues	18	235	15.6	594	2	T23841
Total number of hits satisfying chosen parameters:	283416	19	231	15.3	707	2	JC7763
Minimum DB seq length: 0		20	230.5	15.3	359	1	NBHUC8
Maximum DB seq length: 2000000000		21	229	15.2	682	2	A49121
Post-processing: Minimum Match 0%	Maximum Match 100%	22	229	15.2	682	2	A49138
Post-processing: Minimum Match 0%	Maximum Match 100%	23	227.5	15.1	360	2	S06280
Post-processing: Minimum Match 0%	Maximum Match 100%	24	227	15.0	610	2	T23816
Post-processing: Minimum Match 0%	Maximum Match 100%	25	221.5	14.7	360	2	T47020
Post-processing: Minimum Match 0%	Maximum Match 100%	26	217.5	14.4	357	2	S24317
Post-processing: Minimum Match 0%	Maximum Match 100%	27	214.5	14.2	354	2	A55454
Post-processing: Minimum Match 0%	Maximum Match 100%	28	213	14.1	333	2	T34555
Post-processing: Minimum Match 0%	Maximum Match 100%	29	213	14.1	789	2	T28714
Post-processing: Minimum Match 0%	Maximum Match 100%	30	213	14.1	1355	2	T28715
Post-processing: Minimum Match 0%	Maximum Match 100%	31	208.5	13.9	1389	2	T13882
Post-processing: Minimum Match 0%	Maximum Match 100%	32	207.5	13.7	1385	2	T13887
Post-processing: Minimum Match 0%	Maximum Match 100%	33	207	13.7	562	2	T34319
Post-processing: Minimum Match 0%	Maximum Match 100%	34	207	13.7	653	2	T25194
Post-processing: Minimum Match 0%	Maximum Match 100%	35	204.5	13.5	738	2	T19938
Post-processing: Minimum Match 0%	Maximum Match 100%	36	204	13.5	382	2	T39068
Post-processing: Minimum Match 0%	Maximum Match 100%	37	203.5	13.5	354	2	S29145
Post-processing: Minimum Match 0%	Maximum Match 100%	38	200	13.3	1112	2	T10504
Post-processing: Minimum Match 0%	Maximum Match 100%	39	200	13.2	1025	2	T4626
Post-processing: Minimum Match 0%	Maximum Match 100%	40	199.5	13.2	1025	2	S46224
Post-processing: Minimum Match 0%	Maximum Match 100%	41	198.5	13.1	1066	2	T15864
Post-processing: Minimum Match 0%	Maximum Match 100%	42	196.5	13.0	375	2	S05390
Post-processing: Minimum Match 0%	Maximum Match 100%	43	196	13.0	961	2	T231395
Post-processing: Minimum Match 0%	Maximum Match 100%	44	195.5	12.9	680	2	T19939
Post-processing: Minimum Match 0%	Maximum Match 100%	45	191.5	12.7	626	1	NBHUA2

## ALIGNMENTS

RESULT 1	JC7973	Synlaurin - human
		Species: Homo sapiens (man)
		Date: 25-Aug-2003 #sequence revision 25-Aug-2003 #text_change 15-Sep-2003
		Accession: JC7973
		R;Wang, W.;Yang, Y.;Li, L.;Shi, Y.
		Biochem. Biophys. Res. Commun. 305, 981-988, 2003
		Article: Synlaurin, a novel leucine-rich repeat protein that increases the intensity of pleiotropic
		A;Reference number: JC7973; PMID:12676927
		A;Accession: JC7973
		A;Molecule type: mRNA
		A;Residues: I-E622 <WAN>
		C;Cross-references: GB:AY280614
		C;Comment: This protein that is a single span transmembrane leucine-rich repeat protein is involved
		C;Genetics:
		A;Map position: 5q12.1
		C;Keywords: cytokine; leucine-rich repeat; synleurin; transmembrane protein
		A;Gene: slrn
		Query Match Score 323.5 ; DB 2 ; Length 622;
		Best Local Similarity 27.1% ; Pred. No. 6.6-21;
		Matches 96 ; Conservative 41 ; Mismatches 110 ; Gaps 5 ;
		21 GLQAVPAGIPIASSORLHGNRISYPA-----SFGQSCRN 56
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<http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c7&itemName=20...> 11/27/2007[http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c7&itemName=20... 11/27/2007](http://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c7&itemName=20...)



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\*tumor necrosis factor alpha inhibitor: AN, drug analysis  
\*tumor necrosis factor alpha inhibitor: DV, drug development  
\*tumor necrosis factor alpha inhibitor: DT, drug therapy  
\*tumor necrosis factor alpha inhibitor: TO, drug toxicity  
\*tumor necrosis factor alpha inhibitor: PO, oral drug  
administration  
\*tumor necrosis factor alpha inhibitor: PD, pharmacology  
unclassified drug  
RN  
tumor necrosis factor protein) 109770-29-8,  
(amylloid beta protein) 109770-69-0, 200013-86-1; (exendin 4)  
(calcium) 7440-70-2; (etanercept) 185243-69-0;  
141732-76-5, 141758-74-9; (glucagon like peptide 1) 89750-4-1;  
(infliximab) 170277-31-3; (pifithrin alpha) 63208-82-2; (thalidomide)  
50-35-1

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Full search history

>> d his nofile  
FILE 'HOME' ENTERED AT 10:36:57 ON 21 NOV 2007  
FILE 'HCAPLUS' ENTERED AT 10:37:25 ON 21 NOV 2007  
FILE 'REGISTRY' ENTERED AT 10:39:02 ON 21 NOV 2007

E US20070065429 /PN

1 SEA ABB=ON PLU=ON US20070065429 /PN

D L1

D SCAN

RN	Label	Value	Notes
L1	1 SEA ABB=ON PLU=ON	786653-00-7/RN	
L2	1 SEA ABB=ON PLU=ON	786653-17-6/RN	
L3	1 SEA ABB=ON PLU=ON	786653-18-7/RN	
L4	1 SEA ABB=ON PLU=ON	786653-21-2/RN	
L5	1 SEA ABB=ON PLU=ON	786653-25-6/RN	
L6	1 SEA ABB=ON PLU=ON	786653-25-6/RN	
L7	1 SEA ABB=ON PLU=ON	783350-09-4/RN	
L8	1 SEA ABB=ON PLU=ON	783350-10-7/RN	
L9	1 SEA ABB=ON PLU=ON	783350-11-8/RN	
L10	1 SEA ABB=ON PLU=ON	783350-12-9/RN	
L11	1 SEA ABB=ON PLU=ON	783350-13-0/RN	
L12	1 SEA ABB=ON PLU=ON	783350-14-1/RN	
L13	1 SEA ABB=ON PLU=ON	783350-15-2/RN	
L14	1 SEA ABB=ON PLU=ON	783350-16-3/RN	
L15	1 SEA ABB=ON PLU=ON	783350-17-4/RN	
L16	1 SEA ABB=ON PLU=ON	783350-18-5/RN	
L17	1 SEA ABB=ON PLU=ON	783350-19-6/RN	
L18	1 SEA ABB=ON PLU=ON	783350-20-9/RN	
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L20	1 SEA ABB=ON PLU=ON	783350-22-1/RN	
L21	1 SEA ABB=ON PLU=ON	783350-23-2/RN	
L22	1 SEA ABB=ON PLU=ON	783350-24-3/RN	
L23	1 SEA ABB=ON PLU=ON	790777-25-2/RN	
L24	1 SEA ABB=ON PLU=ON	790777-26-3/RN	
L25	1 SEA ABB=ON PLU=ON	790777-27-4/RN	
L26	1 SEA ABB=ON PLU=ON	790777-28-5/RN	
L27	1 SEA ABB=ON PLU=ON	790777-29-6/RN	
L28	1 SEA ABB=ON PLU=ON	790777-30-9/RN	
L29	1 SEA ABB=ON PLU=ON	L2	
L30	1 SEA ABB=ON PLU=ON	L3	
L31	1 SEA ABB=ON PLU=ON	L4	
L32	1 SEA ABB=ON PLU=ON	L5	
L33	1 SEA ABB=ON PLU=ON	L6	
L34	3 SEA ABB=ON PLU=ON	L7	
L35	4 SEA ABB=ON PLU=ON	L8	
L36	4 SEA ABB=ON PLU=ON	L9	
L37	4 SEA ABB=ON PLU=ON	L10	
L38	4 SEA ABB=ON PLU=ON	L11	
L39	4 SEA ABB=ON PLU=ON	L12	
L40	4 SEA ABB=ON PLU=ON	L13	
L41	4 SEA ABB=ON PLU=ON	L14	
L42	4 SEA ABB=ON PLU=ON	L15	
L43	4 SEA ABB=ON PLU=ON	L16	
L44	4 SEA ABB=ON PLU=ON	L17	
L45	4 SEA ABB=ON PLU=ON	L18	

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L129        6 SEA ABB=ON PLU=ON L117 AND L128  
             6 SEA ABB=ON PLU=ON L117 AND L99  
             L130        21 SEA ABB=ON PLU=ON L128 OR L129 OR L130  
             SAVE TEMP L131 HA669MUTX/A

L132        4 SEA ABB=ON PLU=ON "NOGO (4N) RECEPTOR ANTAGONIST?"  
             0 SEA ABB=ON PLU=ON L131 AND L132  
             L133        1 SEA ABB=ON PLU=ON L132 AND L99  
             D SCAN

L135        29 SEA ABB=ON PLU=ON (NOGO (4N) RECEPTOR) AND (AMYLOID? OR  
             ALZHEIMER? OR ALZHEIMER?)  
             20 SEA ABB=ON PLU=ON L135 AND L92  
             L136        0 SEA ABB=ON PLU=ON (NOGO (4N) RECEPTOR) AND (AMYLOID? OR  
             ALZHEIMER? OR ALZHEIMER?)  
             16 SEA ABB=ON PLU=ON (INCR (4N) RECEPTOR) AND (AMYLOID? OR  
             ALZHEIMER? OR ALZHEIMER?)  
             0 SEA ABB=ON PLU=ON (NOGOR (4N) RECEPTOR) AND (AMYLOID? OR  
             ALZHEIMER? OR ALZHEIMER?)  
             13 SEA ABB=ON PLU=ON L112 AND L69  
             L140        23 SEA ABB=ON PLU=ON L112 AND L70  
             L141        26 SEA ABB=ON PLU=ON (L140 OR L141)  
             L142        33 SEA ABB=ON PLU=ON L135 OR (L137 OR L138 OR L139) OR L142  
             L143        34 SEA ABB=ON PLU=ON L143 AND L92  
             L144        5 SEA ABB=ON PLU=ON L144 AND L99  
             L145        13 SEA ABB=ON PLU=ON L112 AND L69  
             L146        23 SEA ABB=ON PLU=ON L145 OR L131  
             6 SEA ABB=ON PLU=ON L104  
             L147        27 SEA ABB=ON PLU=ON L106  
             L148        20 SEA ABB=ON PLU=ON L148 AND L99  
             L149        24 SEA ABB=ON PLU=ON L147 OR L149  
             SAVE TEMP L150 HA669MLINA/A  
             D QUE L110  
             D QUE L150  
             D QUE L150

FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, DRUGU' ENTERED AT 12:07:44 ON 21  
 NOW 2007

L151        50 DUP REM L110 L150 (17 DUPLICATES REMOVED)  
             ANSWERS '1-23' FROM FILE HCAPLUS  
             ANSWERS '24-29' FROM FILE MEDLINE  
             ANSWERS '30-32' FROM FILE BIOSIS  
             ANSWERS '33-36' FROM FILE EMBASE  
             D L152 1-23 IB1B ED ABS HITIND  
             D L152 24-36 IB1B AB HIT

L152        36 DUP REM L100 L146 (10 DUPLICATES REMOVED)  
             ANSWERS '1-23' FROM FILE HCAPLUS  
             ANSWERS '24-29' FROM FILE MEDLINE  
             ANSWERS '30-32' FROM FILE BIOSIS  
             ANSWERS '33-36' FROM FILE EMBASE  
             D QUE L146